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THE  
Brooklyn Medical Journal

PUBLISHED MONTHLY

BY THE

Medical Society of the County of Kings

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*Editor in Chief.*

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VOLUME XVIII.

JANUARY-DECEMBER, 1904

MEDICAL SOCIETY OF THE COUNTY OF KINGS  
BROOKLYN, N. Y.





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# BROOKLYN MEDICAL JOURNAL

VOL. XVIII

BROOKLYN-NEW YORK, JANUARY, 1904.

No. 1

## ORIGINAL ARTICLES.

### OBSERVATIONS ON PUERPERAL SEPTIC INFECTION.

BY CHARLES JEWETT, A.M., M.D.

Read before the Brooklyn Pathological Society, Nov. 12, 1903.

To cover the entire subject assigned me, Mr. President, would, I fear, tax too much your time and patience. I have taken the liberty, therefore, of limiting my paper to a cursory review of some of the more practical questions relating to septic fever in childbed.

*Prevalence.*—The diminishing mortality of post-partial sepsis in hospitals under progressive improvement in modern methods has well nigh reached the vanishing point. The following statistics may be cited as fair examples of the results now attainable:

Budin, quoted by Webster, reports that at the Maternité in Paris in 1895 the septic death-rate was .27 per cent. of the number of women delivered; in 1896 it was .15 per cent., and in 1897 it was .07 per cent. or less than one in one thousand.

Mermann reported 1,200 consecutive births at the Mannheim Lying-in Hospital with no death from puerperal infection.

In the Lying-in Service of the Long Island College Hospital no case of fatal sepsis contracted in the hospital has occurred in the last ten years.

Dr. Pomeroy tells me that in the last 1,129 consecutive deliveries at the Kings County Hospital, there was but one fatal case of sepsis developed in the hospital.

In the Out-patient Service of the New York Lying-in Hospital the septic mortality in 10,234 confinements between 1890-1896, was 0.14 per cent. Yet these women were delivered in crowded tenement houses by medical students or recent graduates, of course, under skilled direction.

Inquiry within a few years addressed to several obstetric teachers throughout the country elicited the invariable response that in private practice they had no puerperal septic death-rate in women attended solely by themselves.

On the other hand, it is commonly asserted by

recent obstetric writers that in general practice the mortality from puerperal infection is little or no less than it was in preantiseptic times (Williams, Webster, Cullingworth, Pryor, Robb, Byers, Boxall). Yet no definite data have been offered to substantiate this assumption. The only available evidence in the premises must be sought in the public records of vital statistics. These unfortunately are not wholly reliable. Through no fault of the Health Board officials the records are incomplete and in certain other particulars inaccurate. Births are not all reported, miscarriages but seldom. It is estimated that at least 10 or 15 per cent. of septic deaths in childbed are registered under the head of pneumonia, typhoid fever, malarial fever, influenza, etc. It is obviously impossible to determine definitely the proportion of septic deaths to births outside of institutions.

Bacon in 1895 (*Am. Gyn. and Obst.*, July, Vol. viii, p. 427) analyzed the mortality statistics in Chicago for a period of forty years. To the registered number of puerperal septic deaths he added 16.5 per cent. as a fair estimate of the correction required. On this basis he found that between 1866 and 1875 inclusive, 12 per cent. of all deaths in women between 20 and 50 years of age were due to childbed infection, or 127 per thousand. In the ten years ending with 1895 the proportion fell to 73 per thousand. This gain is undoubtedly greater than must be credited to the improved results in hospitals. In other words, it shows some improvement in general practice since the advent of Listerism.

I have recently searched the reports of the Health Department in Brooklyn for a period of 32 years, comparing the number of puerperal deaths with the total number of deaths from all causes. The mortality from all puerperal causes was preferred to that from septic causes alone, for the reason that the latter was not in all years obtainable from the records. The total register of deaths we may assume is correct. That of deaths from puerperal causes for the reasons I have mentioned falls short of the actual number of puerperal deaths, but it may fairly be assumed that the error is nearly constant. The result appears in the accompanying table.\* To show how

\* Acknowledgment is due Dr. S. J. Byrne, Assistant Registrar of Records, for kindly placing recent records of the Brooklyn Health Office at my disposal.

the septic mortality compares with the total puerperal mortality as registered, the former has been included for the last six years.

Year.	Total Deaths.	Puerperal Causes.	Percentage.
1870 .....	9,546	88	.92
1871 .....	10,259	108	1.05
1872 .....	12,648	141	1.11
1873 .....	10,986	131	1.20
1874 .....	11,011	157	1.43
1875 .....	12,470	157	1.26
1876 .....	12,334	128	1.03
1877 .....	11,362	166	1.41
1878 .....	11,075	140	1.30
1879 .....	11,569	182	1.57
1880 .....	13,222	142	1.07
1881 .....	14,533	159	1.09
1882 .....	15,013	173	1.15
1883 .....	13,758	147	1.06
1884 .....	14,116	199	1.40
1885 .....	15,369	217	1.41
1886 .....	15,790	177	1.12
1887 .....	17,078	160	.93
1888 .....	18,061	163	.90
1889 .....	18,480	159	.84
1890 .....	19,827	167	.84
1891 .....	21,349	201	.94
1892 .....	20,807	240	1.15
1893 .....	19,504	156	.79
1894 .....	21,183	88	.41
1895 .....	22,568	96	.42
1896 .....	22,501	134 (Septic 118)	.59
1897 .....	20,671	187 (Septic 67)	.90
1898 .....	21,989	164 (Septic 66)	.74
1899 .....	21,649	152 (Septic 107)	.70
1900 .....	23,507	260 (Septic 73)	1.10
1901 .....	23,271	218 (Septic 71)	.91
1902 .....	22,544	197	.88

On the whole, the table gives evidence of material reduction in the mortality from puerperal sepsis in recent years. It must be remembered, however, that the gain is explained in part by the greatly diminished puerperal death-rate in hospitals. Yet the proportion of hospital confinements in Brooklyn is smaller than in most communities of equal population. Something, too, must be credited to the improved results in non-septic puerperal diseases.

When we consider that a large percentage of the deaths in childbed must be charged to the midwife, the showing is not so bad as has been assumed for the physician in general obstetric practice. Yet a considerable balance of preventable deaths still remains.

The septic morbidity in dwellings we have no means of knowing. Not only is it much greater than in hospitals, but the percentage of infected cases that die is also greater, and this, as will appear later, because of overtreatment.

*Some of the Causes of Puerperal Infection in General Practice.*—It may naturally be asked to

what extent septic processes in childbed may be attributed to non-preventable causes—to auto-infection. While the possibility of autogenous infection cannot wholly be denied it must be so rare that it scarcely need be reckoned with. The literature on this question may appear somewhat confusing. Till within a few years numerous bacteriologists have held that streptococci and other pyogenic bacteria may be isolated from the vaginal secretion of healthy pregnant women. Even so recently as the last meeting of the German Society for Gynecology at Würzburg in 1903, Bumm reported that he had found active streptococci in the vaginal secretion in a very small percentage of healthy gravidæ.

The question has practically been set at rest by the work of Krönig, Menge, Williams and others. They hold that those who have found pyogenic cocci in the genital canal have introduced them by faulty methods of manipulation. Ample investigations have established the fact that the vaginal secretion in healthy pregnant women harbors no pyogenic cocci.

It must be granted that the secretion is not always healthy. The gonococcus may live and thrive in it, and it is estimated by Sängcr that about 25 per cent. of pregnant women are the subjects of gonorrheal infection. Taussig, F. J. (*Am. Gyn.*, II, No. 3), considers the gonococcus the etiological factor in about one-sixth of all cases of puerperal infection.

Yet gonorrheal puerperal infection usually runs a mild course, the fever generally subsiding within a few days. Its manifestations are limited almost invariably to the pelvic organs. While fatal gonorrheal infection is possible in childbed, it is so infrequent that the gonococcus may be counted a nearly negligible factor in puerperal mortality.

That infection from causes primarily present in the genital tract plays practically no part in puerperal sepsis is sufficiently proven by the experience of hospitals. The septic mortality and morbidity in institutions have diminished just in proportion to the rigidity of the aseptic technic. They have been lowest under abstention from all interference within the birth canal.

Results in general practice will improve when physicians look solely to their fingers and instruments as the carriers of infection. For the obstetricians' hands and instruments, and for the external genitals of the patient, the necessities of clean practice are no less exacting than are those of major surgical operations. But an aseptic technic is acquired only at the cost of rigid train-



ing such as the every-day work of most physicians seldom ensures.

It is a common mistake to trust too much to chemical and too little to mechanical cleansing. The chemical antiseptic is of comparatively little value, and alone is utterly useless for skin disinfection. Better a faithful soap and water scrubbing for 10 or 15 minutes without the chemical than chemicals with imperfect mechanical cleansing.

For the physician frequently exposed to septic contact, the use of rubber gloves is a wise precaution. Fehling (*Zur Prophylaxe und Therapie des Puerperal Fiebers*, *Münch. med. Woch.*, No. 33, 1903), reports 802 cases of labor in 1901 and 803 in 1902, with no death from sepsis, and with a very low morbidity. The good results he attributes in part to the use of rubber gloves.

In the Hospital for Ruptured and Crippled in New York, suppuration after hernia operations was reduced from  $4\frac{1}{2}$  per cent. to  $1\frac{1}{2}$  per cent. by the use of gloves. Halsted's experience in the Johns Hopkins Hospital is to like effect.

Schumacher (*Arch. f. Gyn. u. Geb.*, B. 68, H. 2), comparing his results with gloves to those obtained with painstaking disinfection of the hands without gloves, contends that the latter do not appreciably reduce the septic mortality or morbidity. No streptococci were detected on the skin after faithful disinfection. Lower orders of bacteria were found, but the number and virulence were greatly reduced. The bacteria which remained on the hands after thorough cleansing had no influence, as he believed, on the puerperal state.

These observations go to prove the value of systematic asepsis, but Schumacher's conclusions hold only for those well trained in the technic of hand-cleansing. For obstetricians not so well schooled in methods of surgical cleanliness the advantage of gloves cannot reasonably be doubted if they are made sterile and subsequent unclean contacts are avoided. Gloves, too, find another useful purpose in protecting the hands from infectious contacts in the daily work of the physician.

A common cause of puerperal infection is the habit of needless internal manipulation during delivery. Except in the presence of obvious irregularities there is little or nothing to be gained by more than two internal examinations in the entire course of the labor, one during the first and one in the second stage. In strictly normal conditions all the necessary diagnostic details may be learned by abdominal palpation. Even the

rate of descent may be watched by external signs.

Especially unwise is manipulation within the birth canal during and immediately after the third stage. When the wounds and abrasions are fresh and the local and general resistance at a minimum, unnecessary contact of hands or instruments with the wounded surfaces should religiously be avoided. Douching at this juncture, which by many is still practiced for cleansing, especially after artificial deliveries, can do nothing but harm.

A prevalent custom which may favor infection is the rigid maintenance of the recumbent position after labor. In normal cases and in many others the patient may be allowed to assume a sitting posture for bowel and bladder evacuations. Blood clots are thus passed off which otherwise may be retained for days. Injurious distention and perhaps infection of the bladder, too, is more surely prevented.

In closing this part of the discussion the fact should be emphasized that the one chief cause of infection is unclean contact, during or soon after delivery.

#### SOME OF THE COMMONER METHODS OF TREATMENT IN PUERPERAL INFECTION.

*The Curette.*—One of the principal causes of death in post-partal infection is the indiscriminate use of the curette. The mortality in curetted cases is variously estimated at from 22 to 59 per cent., whereas the mortality in wholly neglected cases of streptococcic infection would not, it is believed, exceed 20 per cent. In three series of cases of streptococcic infection reported by Krönig, Savor, and Williams, respectively, 138 in all, the mortality under little or no intra-uterine interference was 5.75 per cent. (J. Whitridge Williams, *Trans. Am. Gyn. Soc.*, 1899). Krönig and Williams lost less than 4 per cent.

But we need not invoke statistics. *A priori* the routine use of the curette is irrational. In the milder forms of streptococcic endometritis the leucocytic wall bars the diffusion of the bacterial organisms. The curette breaks down the protective barrier and opens the way to wide-spread infection.

In the severer forms little or no leucocytic zone is developed and the streptococcus is beyond the reach of the curette from the first appearance of symptoms. Here the curette opens lymphatics and veins anew and helps to reinforce the bacterial invasion.

Even in the presence of what is believed to be

nothing more than necrotic gestation products the curette is by no means free from danger. The diagnosis of uncomplicated saprophytic infection cannot be made clinically and the help of a competent bacteriologist is not always at hand. Again the presence of saprophytic organisms is soon complicated by pyogenic infection as Bumm and others have shown.

Clinically, the distinction between sapremia and septicemia is not so clearly defined as was formerly assumed. In sapremia streptococcic infection is also frequently present or soon follows. It has recently been shown by Krönig and Jearmin that exceptionally saprophytes may invade the blood.

In the beginning stage of putrid decomposition the results of curetting are often most satisfactory. But as a rule the curette is better replaced by fingers and uterine dressing forceps. The forceps should not be the instrument usually supplied by dealers for gynecologic use. Best is a Keith forceps having a joint about  $2\frac{1}{2}$  inches from the distal end. This can be opened freely in the uterine cavity, the joint resting in the cervix. The gloved finger supplements the forceps in detecting and scraping away residual fragments.

While the curette cannot wholly be condemned there can be no doubt that in the treatment of acute puerperal endometritis the general results would be better if it were not used at all.

*Irrigation.*—The objections that hold against the curette apply in some measure to the douche. Often foci of infection have been established beyond the uterine cavity and beyond the reach of the douche. Abrasions of the endometrium or dislodgement of thrombi from the uterine sinuses may result. Cases have been reported in which the irrigating fluid, together with septic material from the uterine cavity had been forced through the tubes into the peritoneum. This, however, must be rare. Generally the douche should be used but once, and only as a part of the primary cleansing. Except in the presence of loose debris there is no occasion for douching. When required, since its function is purely mechanical, only the normal saline solution or boiled water should be employed. Nothing is gained by the use of antiseptics. On the contrary, many deaths have resulted directly from the practice of mercurial and carbolic douching. The irrigation should be carried out with the patient on a table, with full aseptic precautions, and with care to provide for the free escape of the irrigating fluid. Repeated or continuous irrigation is seldom or

never advisable. While formerly I practiced repeated douching better results under little or no interference within the uterus have convinced me of the error of the practice.

Sometimes a narrow strip of gauze carefully packed with moderate firmness and withdrawn after a few minutes is more effectual in removing loose necrotic shreds than the eddying douche stream, yet it is more likely to cause abrasions. Sometimes the cavity may best be cleared with a soft cotton ball held in the grasp of forceps.

*Caruso's Alcoholic Irrigation.*—Akhscharoumoff of the Lying-in Institute in St. Petersburg has recently renewed the claims of alcoholic irrigation. Two rubber tubes are introduced into the uterus. A loose gauze pack is placed around them, and every four hours eight ounces of alcohol are injected through one of the tubes, its free escape being provided for by the other tube. Caruso uses 80 per cent. alcohol, Akhscharoumoff 40 per cent. The alleged good effects are credited to both the local and the systemic action of the alcohol. It does not appear that the results are better than those of the semi-expectant treatment already referred to.

Atmocausis is theoretically sound, but for general use, at least, is impracticable.

*With Fochier's method* I have had no experience. Fochier treats puerperal pyemia by injecting early in the attack one cc. of sterilized essence of turpentine into the cellular tissue of the deltoid region or the flank. The resulting abscesses are opened and drained. Subsidence of the febrile symptoms, it is claimed, promptly follows.

Cheron has recently reported some successes with this procedure. Most authorities have obtained only negative results.

Fochier's treatment brings to mind some recent observations of Corminas (*Laws of Immunity, Revista de Ciencias Medicas der Barcelona*, Aug. 1, 1903). He lays down the following propositions:

A puerperal woman affected with acute suppurative mammitis is never mortally infected with her own pus.

Reinfection of the patient by transference of mammary pus to the genital canal is very rare, and when it does occur is never fatal.

The author's hypothesis is that the products elaborated in the mammary focus lend to the organism a relative immunity.

*Glycerinated Formalin Pack.*—Webster packs the uterus with gauze saturated with glycerinated formalin solution. The latter consists of thirty minims of commercial formalin and four ounces



of glycerin in one pint of sterile water. The pack is renewed every 12 hours, so long as disinfection is required. Each packing is preceded by irrigation with peroxid of hydrogen. No statistical results are given. While this procedure is doubtless better than repeated douching it is not wholly free from the dangers of other intravascular measures, especially in unskilled hands.

*Intravascular Medication.*—Barrows' ingenious proposal and the recovery of his first case aroused great expectations for formaldehyd injections. But the principle upon which his treatment was founded had already been proven fallacious. The bacteria are not always in the blood. Even when they are, germicides in sufficient strength to destroy them do serious injury to the elements of the blood. The good results that have followed formaldehyd injections are doubtless to be credited to the dilution and elimination of the disease poisons and not to the germicidal effect of the chemical.

The status of intravenous injections in the treatment of septic processes is well presented in a recent paper by Fanoni (*Intravascular Medication, with Especial Reference to Septicemia. The Post Graduate*, June, 1903). One or two pertinent observations may be cited from this author. In 1902 Serafini in experiments on rabbits inoculated with anthrax and chicken cholera found that intravenous injections of mercuric chlorid exerted no specific action on septicemias caused by the microbes of those diseases. Spissu in the same year showed that injections of bichlorid of mercury in toxic doses failed to prevent the development of anthrax in the blood.

In Fanoni's experiments on rabbits inoculated with pyogenic cocci the non-injected animals lived longer than those treated with formaldehyd.

Numerous experiments have demonstrated that the intravenous injection of antiseptic agents powerful enough to kill bacteria in the blood "not only destroys the life of the corpuscles, but also the animal experimented upon." Yet it is believed that bichlorid injections in small doses exert some influence in stimulating the organism to the production of antitoxins.

My experience with formaldehyd injection is limited to a single case. Recently a woman suffering from virulent septic infection post-partum was brought into the L. I. Coll. Hospital. An intravenous injection of 500 c.c. of a 1:5000 formaldehyd solution before admission had been followed by a sharp chill and rise of temperature to 105° F. A like result ensued from a similar injection given in the hospital, and the case ended fatally.

*Collargol.*—Confidence has been expressed by several writers in the intravenous exhibition of collargol. From 10 to 20 cc. of a 1 or 2-per-cent. solution are thrown into a vein by direct puncture with the needle. Fehling reported that 50 per cent. of severe cases treated by this method recovered. H. Schmidt treated 19 septic cases with an .08-per-cent. solution. His results, he says, were encouraging. The injection is repeated as often as exacerbations occur, if the first has been attended with benefit.

Loebl and Schlessinger have found that rectal injections of collargol are quite as effective as the intravascular exhibition of the drug.

Unlike formaldehyd and mercuric chlorid, collargol probably does not act to any great extent as a direct germicide. Bamberger (*Concerning the Action of Credé's Collargolum, Berliner klin. Woch.*, Aug. 24, 1903) offers the following explanation of its action. An enormous number of leucocytes, he says, must be concerned in removing the precipitated silver from the blood. These leucocytes lose their usefulness in the body economy and pass out of the organism laden with silver. To replace the missing leucocytes the blood-forming organs must necessarily produce new ones which take their part in combating the infection. Leucocyte production is stimulated by the toxins and this stimulation is further enhanced by collargolum.

Bamberger, however, observes that a direct bactericidal action may obtain when abscess formation has set in. Metallic silver hinders bacterial growth in its immediate vicinity. It is possible that the efficacy of collargol may be due in part to its catalytic property as a colloidal metal. Silver laden leucocytes would probably be found among those called forth by the inflammatory reaction. Inunctions operate in the same manner as the intravascular exhibition of collargol, by stimulating leucocytosis.

Intravenous injections of collargol and especially inunctions of unguentum Credé have the merit of being harmless, and they may be thought worthy of further trial. When the latter is employed, large quantities of the ointment should be used daily, and over a large surface. Mann reports a streptococcic case which was treated successfully with Credé's ointment applied freely all over the body every few hours, supplemented by intravenous injections of silver. The silver treatment is endorsed also by Fehling and by Vineberg. My own observations have not been convincing.

*Blood washing* by the injection of normal saline solution or artificial serum is a rational

measure, and is supported by the results of animal experimentation and of clinical experience. No injurious effects upon the blood cells have been noted in experiments upon animals. Yet it should be remembered that danger may arise from rapid dilution of the blood. Small doses of about 8 ounces, repeated once, or not oftener than four times daily, have given the best results. The .9-per-cent. solution of common salt or artificial serum may be used.

Hypodermoclysis and enteroclysis are simpler and safer than intravascular injections and generally the former is, in my experience, sufficiently prompt in its action.

*Serum Treatment.*—Many members of the profession still evince a lingering faith in anti-streptococcus serum and supposed clinical successes are frequently reported. Yet puerperal infection may be due to any one of several species of streptococcus, or solely to other organisms than streptococci. The rational application of serum therapy to streptococcus infection requires a bacteriologic diagnosis and probably separate sera for different species of streptococcus. The so-called polyvalent serum of Van de Velde has yielded no more satisfactory therapeutic results than that of Marmorek.

There is little reason to hope for the success of serum therapy. The work of Michaelis and Aronson appears to indicate that the antistreptococcus sera are not bactericidal in their action, since streptococci grow almost equally well in normal and immune serum.

Petruschky (*Zeits. f. Hyg. und Infektion Krank.*, Bd. xxxiii, H. 3) inoculated a woman with streptococci eleven times at intervals of one or two weeks. Typical erysipelas resulted every time, showing that no immunity had been established.

Neufelt testing blood serum from a case recovering from streptococcus septicemia showed that the serum produced no immunity against a subsequent infection.

*Neuclein.*—J. Hofbauer, who first proposed the neuclein treatment in 1896, has recently (*Arch. f. Gyn.*, Bd. 68, H. 2) reported 12 cases so treated with 11 recoveries. Streptococci were present in 7, bacillus coli in 3, staphylococci in 5.

The neuclein theory depends upon stimulation of the bone marrow resulting in blood cell production and increased formation of antibodies. My own results with neuclein have been negative. My experience, however, has been limited to the hypodermic use of this agent, and Hofbauer lays special stress on the importance of giving it by

the stomach. Yet his percentage of recoveries is not large enough to establish his claims for neuclein.

*Ochsner's Treatment.*—Worthy of mention is the rest treatment of Ochsner (*Am. Med.*, Aug. 30, 1903). Lymphatic circulation is retarded by inhibiting muscular action. In peritoneal sepsis the stomach is washed out and the patient fed by the rectum, no food or cathartics being allowed by the stomach. In peritoneal sepsis following criminal abortions, which have been so treated, there have been no deaths.

The opium treatment of peritonitis introduced by Clark 30 years ago, and now obsolete, was in principle not wholly unlike that of Ochsner. It splinted the bowels and ensured rest.

*Surgical Measures.*—Pus collections should be evacuated in accordance with general surgical principles. The prompt recognition of pus foci requires occasional pelvic examinations. Good results have followed the incision of edematous pelvic structures that have not broken down. Often a copious drainage of serum is followed by as marked a subsidence of temperature as though pus had been evacuated.

*Pryor's Method.*—Pryor curettes and packs the uterus with 10-per-cent iodoform gauze. He then opens the posterior cul-de-sac widely and packs the pelvic cavity to the level of the broad ligaments with a 5-per-cent. iodoform gauze. The intrauterine pack is renewed in three days, and finally removed in six. The cul-de-sac dressing is changed at the end of seven days and subsequently at intervals of five till the cul-de-sac closes. The good effect of this treatment is attributed to the liberation and absorption of iodine. In 36 streptococcic cases he had 4 deaths, 11 per cent. In 27 which had not previously been operated upon, there was 1 death, 3.7 per cent. Robb adopts a similar plan of uterine disinfection and cul-de-sac drainage.

*Hysterectomy* is indicated in very rare instances, and only when the infection is limited practically to the uterus. Among the conditions in which the surgeon may be justified in considering the extirpation of the uterus are putrid placental retention, not otherwise capable of relief, suppurative metritis, septic fibromata, grave injuries of the uterus, fibromata which have suffered traumatism during labor, which are septic or degenerating, or which obstruct the lochial discharge.

In a recent paper I collected 112 cases of hysterectomy for puerperal sepsis with 59 recoveries. The cases were not all fully authenticated.



Doubtless, too, some of the women would have recovered without operation. Yet the evidence was sufficient to show that the sacrifice of the uterus is justifiable in very exceptional instances. The chief objection to hysterectomy for puerperal infection is the almost insurmountable difficulty in determining clinically the indications in a given case.

*Resection of Infected Pelvic Veins.*—Freund, Thomas, Bumm, Sippel, Lusk, Trendelenburg, Baldy, Michels and others have advocated resection of infected veins in the broad ligaments. A fair degree of success has attended the operation. Obviously to be effective it must be done early.

*Drug Measures.*—Two drugs are of special value, strychnin and alcohol. For best effects both should be pushed well nigh to intoxication. In case of alcohol this may not always be possible since it is not in all cases well borne by the stomach. The form of alcoholic stimulant should be varied to suit the taste of the patient and should be changed frequently.

In severe cases strychnin may be given subcutaneously in doses of one-thirtieth to one-twentieth grain every 2 to 4 hours, till its characteristic effects are noted, and its action subsequently maintained by smaller doses.

Quinin may sometimes be added, but only in tonic doses of 2 or 3 grains three times daily. Large doses, it is believed, do harm by hindering the elimination of the toxic material. The coal tar antipyretics have a similar bad effect in addition to the fact that their continued use depresses the heart and masks the disease.

*Cathartics* should be used in moderation.

*Ergot*, twenty drops every 2 to 4 hours, helps to limit diffusion of infectious material from the uterine cavity, by ligation of the uterine veins and lymphatics.

*Oxygen.*—The inhalation of oxygen is a rational and useful measure. Ventilation is an economical method of supplying oxygen, and abundance of pure air should be provided.

*Feeding.*—Nutrition should be maintained to the full extent of the digestive powers. In bad cases the feeding must consist of easily digested or predigested liquid foods. The more digestible solid or semisolid foods may be added to advantage when well borne.

#### OUTLINE OF TREATMENT RECOMMENDED.

The diagnosis must exclude non-septic infectious diseases and other than pelvic sources of septic infection. It should also be known whether

the vagina or the uterus is the seat of the infectious focus. In nearly all cases the primary seat of infection is the uterine cavity.

Membranous patches in the vagina may be treated with applications of tincture of iodine or of strong carbolic acid, followed immediately with alcohol, and repeated two or three times daily, or may be dealt with after the method of Webster by vaginal packs of glycerinated formalin.

When the uterine cavity is the seat of infection the uterus should be explored digitally to learn whether it contains fragments of placenta or of membranes or blood clots.

Necrotic material should be removed, best with the gloved finger and dressing forceps. Debris may be swept out with a soft cotton ball held in dressing forceps, or by irrigating with normal salt solution. The foregoing manipulations should be conducted on a table with due aseptic care.

The dull curette is endorsed by many authorities, but results are better without even dull curetting.

Repeated curetting or douching is especially injurious.

When the uterus is empty no local measures are indicated. It should be remembered that about 80 per cent. of streptococcic infections of the endometrium recover without treatment. On the other hand, most virulent infections will end fatally whatever treatment is employed. The temptation is to do too much.

The systemic treatment consists in bracing the resisting powers and in promoting elimination.

For the former purpose strychnin and alcohol are the principal measures.

Elimination is favored by one or two bowel evacuations daily, and by diuresis. Plenty of water should be introduced into the circulation by the stomach by enteroclysis, or if necessary by hypodermoclysis. The addition of acetate of sodium to the fluid injected adds to the diuretic effect.

Antipyresis when required may be effected by sponging or by wet sheet packs with water at a tepid or neutral temperature. My practice is to wet the double gauze sheet at short intervals with water, at body temperature. This involves no shock, is more agreeable to the patient, and more successfully controls the pyrexia.

Pus collections should be detected promptly and be dealt with as in other conditions.

Particular attention should be paid to the regulation of the feeding.

Under this simple plan of treatment the prevailing mortality may be very greatly diminished.

## CONTRAINDICATIONS TO MATERNAL FEEDING.

BY WILLIAM A. NORTHRIDGE, M.D.

THESE should be comparatively rare, for Nature's intention surely is that the mother shall suckle her young. Yet it is a matter of frequent observation that babies are weaned for insufficient cause.

It should always be considered a very serious proposition to wean an infant under eight months of age, especially in the summer time. Its life may pay the forfeit.

The mother also must pay the price if she breaks Nature's law in this regard. She is much more prone to uterine disease, diseases of the breast, cancer, frequent child-bearing and besides loses the pleasure of nursing her own child.

Normal maternal lactation being Nature's method, we should be very sure that this has become abnormal beyond any known remedy, before we advise or consent to the cessation of maternal feeding.

Because a baby does not thrive upon the breast is not in itself a sufficient reason for weaning. Perhaps it is fed too seldom or for too short a time or too frequently or for too long a period, or the cause may be inherent in the mother or in the milk and may be removable. The trouble should be searched for and if possible overcome. Sometimes the cause being eradicated, nursing and nutrition go on again normally.

Because a mother is nervous or frail or given to fits of anger or unhappy, or does not wish to nurse her baby—these are not necessarily good reasons for weaning. They should be made light of, from the standpoint of the physician. Let the mother take the full responsibility of weaning if she insists, unless weaning after careful effort to nurse is deemed advisable.

From my own experience and observation I am convinced that earnest effort would result in many mothers nursing their babies where aforetime they deemed themselves incapable of doing so.

Some women not knowing what joy they are missing, simply refuse to nurse their babies, often from some selfish motive, and "when a woman won't, she won't." These unfortunate babies must be wet-nursed or brought up artificially, and some of them die.

The following are some of the reasons given for weaning which in the great majority of cases do not constitute real contraindications:

Cracked nipple.

Hyperesthesia of the nipple.

Ulcer of the nipple.

Caked breast.

Mother unwilling to nurse her child.

Irregular habits on the part of the mother.

Mother ill-tempered.

Mother given to fits of depression.

The physician should be able to overcome these by treatment and persuasion. If he cannot overcome the cause it becomes a real contra-indication.

The following are some of the conditions which may in certain cases, constitute good and sufficient causes for weaning. The doctor must judge in each case according to the facts and his decision should be final as to whether the nursing shall go on or not.

Abscess of the breast.

Insufficient supply of milk.

Child losing weight or not gaining.

Indigestion in child.

Frequent emesis.

Syphilis in the mother; child apparently free.

Diseases of the nervous system.

Chronic diseases of the skin.

Menstruation.

Pregnancy.

My experience as to pregnancy and menstruation is as follows: In many cases menstruation does not interfere in the least with the nursing, in effect, either upon the mother or the child. It sometimes causes the mother to feel "dragged out" somewhat. Sometimes the milk will disagree with the child temporarily. In such a case it is wise to give the baby an artificial food during the menstrual week and keep the breasts pumped out occasionally each day. If either mother or child appear to be gravely disturbed, of course, the nursing should cease at once.

Pregnancy often, for a time, does not interfere with the nursing. The pregnant woman, if she be strong and well, often can and does nurse her baby for the first few months. If certain symptoms, to be enumerated later on, supervene, it is better to wean the baby at once. If the child is old enough to make it at all safe, it should be weaned at once, anyway, and thus relieve the mother of the double burden. The danger of reflex miscarriage should be borne in mind.

Of course, we should remember the rule, that pregnancy and lactation should not go on together, and always in these cases use our very best judgment.

The following reasons for weaning absolutely always hold good and should be included in our



mental list as constituting just causes for weaning. We should positively forbid the mother to attempt to nurse her child when any of these are present:

Absence of the breasts.

Insurmountable defective development of the breasts.

Mastitis in both breasts with pus in the milk of both.

Carcinoma of the breast.

Entire and insurmountable cessation of the secretion of milk, no appreciable cause being present. It should be remembered in this connection, that sometimes one breast will secrete milk while the other will not.

Total absence of the nipples (rare).

Defective development of the nipples, sunken and inverted (common) which cannot be drawn out.

Impervious milk ducts (rare).

Severe cases of puerperal fever.

Prolonged cases of metrorrhagia or menorrhagia.

Serious attacks of acute disease, as typhoid or pneumonia.

Advanced cases of chronic disease.

Tuberculosis.

Syphilis (unless child is syphilitic, when one should use best judgment).

Adynamia.

Mental disease.

Hysteria gravis.

Epilepsy (with many seizures).

Chronic arthritis.

Child steadily losing weight, notwithstanding all our efforts.

Milk persistently and greatly abnormal and not agreeing.

Certain acute symptoms appearing in the mother call for weaning for her sake. These are principally faintness, vertigo, palpitation, weakness, night sweats, languor, tremor and cough. On weaning being accomplished they quickly disappear. In my experience these symptoms come on so late in the nursing period that weaning can be done with little danger to the nursing.

A society woman should give up fashionable life after her baby is born. Someone has well said, "A votary of fashion has neither the time, energy or strength left to nurse her baby." He might have added, "or inclination."

When no imperative reason for weaning exists the physician should insist that the mother make a strong, earnest effort, under his guidance, to nurse her child.

## SOME RESULTS IN ROENTGEN DIAGNOSIS AND THERAPEUTICS.

BY CHARLES LESTER LEONARD, A.M., M.D.,  
of Philadelphia.

THE preservation of the body in perfect functional activity is the ideal object of medicine. The diagnosis and correction of abnormal conditions is the practical science. The practical approximates the ideal whenever the diagnosis is made early and accurately, and wherever the treatment restores the normal condition. The science is furthered by all means and methods that increase the power and accuracy of early diagnosis, and the efficiency of treatment.

The Roentgen method has a peculiar value because it has advanced knowledge in both of these directions. As a method of diagnosis it secures most accurate information at the earliest moment. As a therapeutic agent it restores tissues to the normal without producing a necrosis of the pathologic cells.

The advance made in diagnosis is seen in the application of this method in fractures. It has established new standards both in diagnosis and treatment. The production of crepitus and preternatural mobility can no longer be justified, more accurate knowledge can be secured without causing the patient pain or producing further injury to the injured tissues.

A case that recently came under observation illustrates the impossibility of securing accurate diagnosis by these older methods.

The patient, an elderly lady, made a misstep. The injury was considered a bad sprain, but failed to improve and the consulting surgeon was called in. After a careful examination the diagnosis was confirmed and the treatment supplemented by massage and passive motion. The ankle improved until an attempt was made to walk. The continued pain and disability finally led to the Roentgen diagnosis. A fracture of the lower end of the tibia was found passing from above downwards and inwards to the tibio-fibular articulation. The ligaments of this joint and those of the ankle joint held the fragments in such close apposition that the crude signs of fracture could not be produced, and the patient could bear the weight on the foot without producing any displacement.

The greater accuracy and detail furnished by this method of diagnosis aid in the exact coaptation of the fractured surfaces. It shows in which cases open operation is necessary to secure re-

duction, as in transverse fractures of the femur. It also determines the efficiency of fixation apparatus, and facilitates after-treatment, since the exact line of fracture is known and displacements can be prevented while passive motion is employed.

The universal application of this method has been facilitated by the recent production of efficient portable induction coils. Their portability makes it possible to employ this method in all cases, as they can be used with equal accuracy at the patient's bedside. This universal employment is essential to better results in the treatment of fractures. It will be demanded when the general practitioner appreciates the value of it to his patient.

The advance made in diagnosis has raised the standard by which the surgeon's methods of diagnosis and treatment should be judged. The patient should not be compelled to submit to pain and further injury from diagnostic procedures. He cannot demand results out of proportion to the injury he has sustained, but he can demand as "reasonable care" that the Roentgen method be employed.

The value of these examinations is not wholly the patient's. They guard the interests of the practitioner. They show how serious the osseous injury has been, that a reasonable apposition has been made, and that the fixation apparatus is effective. This is valuable evidence. The established value of this method makes it necessary to employ it in every case, but especially in any case where a reasonable doubt exists. If it has not been employed, or its use suggested and aid refused by the patient, it cannot be said that all reasonable care and means have been used to the best of the surgeon's knowledge and ability.

The increased efficiency of treatment resulting from this more accurate and early method of diagnosis has a widespread effect. This effect has been particularly noticeable in the diagnosis of calculous conditions of the kidneys and ureters. In these conditions the symptoms are often vague and misleading, often out of all proportion to the seriousness of the case. A small quiescent calculus may form the gravest menace. Its impaction may result in complete anuria, and the death of the patient or unilateral anuria and the destruction of the kidney. The symptomatology does not differ from less serious conditions. The symptoms may all subside and yet an anuria be present. An undetected calculus is always dangerous. The presence or absence of calculi should be determined after a suspicious attack of renal

or ureteral colic. This knowledge gives the exact position of the calculus if present, and forms in conjunction with other symptoms, an accurate basis for treatment. If the calculus is too large to be passed it can be removed at once, and the kidney saved from further injury. If its size shows that it can pass, and there are no threatening symptoms, a course of conservative expectant treatment can be followed. Such a course is only reasonable when based upon such exact knowledge. It has been adopted in many cases in which the author has found small ureteral calculi, and has resulted in the passage of all the calculi in nineteen cases.

The accuracy of this method of diagnosis has been shown in a series of three hundred and five cases that have been referred for examination. Calculi have been found in eighty-nine cases, while 60 per cent. of these calculi have been found in the ureter. The negative diagnosis has proved more accurate than the positive. Errors have been made in nine cases or less than 3 per cent. In only one of the forty-five cases of negative diagnosis that were subsequently operated on was a calculus found. In two others small calculi were afterward passed. This method has been shown to possess the following advantages:

It is free from all the dangers that accompany exploratory operations and catheterizations. It is most accurate and comprehensive without occasioning pain, injury or even inconvenience to the patient. The exact number and situation of all calculi are determined so accurately that no calculi are left behind and the operation is certain to be complete. The danger of operating upon the wrong kidney is entirely avoided, and the field of operation is limited to the exact position of the calculus, thus decreasing the operative trauma and facilitating rapid recovery.

The accuracy that has been demonstrated in the negative diagnosis makes it unnecessary and unreasonable to open the kidney in the search for stone during nephrorrhaphies or exploratory operations. The diagnosis can be made early when the least suspicion points to the presence of a calculus. The dangers from small quiescent calculi are thus avoided and the basis formed for reasonable treatment. This method is not infallible, as much depends on the accuracy of its employment and interpretation. All other methods should be employed in connection with it, but no diagnosis can, however, be considered complete without it.

Operation for renal or ureteral stone has frequently been shown to be incomplete where it has



not been employed and will often be so where it is neglected.

The remarkable power which the Roentgen rays, or some agent working through them, possesses over malignant disease has given this therapeutic agent great prominence. Scientific workers all over the world are engaged in its study and in the development of more efficient methods in its employment. The exact physiological action of this agent is unknown, yet it has demonstrated its power to change the character of malignant cells. A retrograde metamorphosis takes place, and the cells are absorbed or replaced by normal cells. Such results can be obtained by no other method of treatment.

Astonishing as the results obtained are, the primary employment of this method of treatment cannot be advised until more accurate knowledge of its applications is secured and time has shown how permanent are the results obtained. Early, radical surgical removal is known to give the patient the best chance of recovery. Until an equal efficiency has been demonstrated for the Roentgen method primary surgical operation must be advised in all cases of malignant disease, except the superficial epitheliomas, where the danger from metastasis is small, and cosmetic results are desired.

The patient's chances are unquestionably improved by a thorough post-operative course of Roentgen treatment, and this should be as strongly advocated as early operation. Instead of replacing operations the first logical step will be to render them less radical and mutilating, by supplementing the removal of the principle focus of the disease, by the alteration of any remaining foci by the Roentgen treatment.

This treatment to produce good results in malignant disease must be used with all the severity the patient's vitality will permit. Anything short of this stimulates rather than hinders. The full therapeutic action cannot be produced until a tolerance is secured in the normal tissues. This is shown externally in a gradually darkening tan, often followed by a dry exfoliation of the epidermis.

Valuable therapeutic results can only be secured by the study of the individual case, and the adaptation of the dose to the necessities of each patient. This can only be accomplished by those trained by education and experience to appreciate effects upon tissues. The medical profession is beginning to realize that this powerful agent should only be employed by qualified practitioners of medicine.

A brief review of the effects produced in some

cases of malignant disease will illustrate its efficiency, and show that there is a reasonable expectation of further developments. The cures and palliations so far effected form sufficient ground for the opinion, that this method of treatment should be employed in all cases of malignant disease, either post-operatively as a prophylactic and supplementing operation, or as a palliative and possibly curative agent in inoperable cases.

Apparent cures have been produced in an epithelioma of the upper eyelid, that had invaded the palpebral cartilage. The cosmetic result was perfect, no scar resulted, and the only defect was the absence of eyelashes, as the hair follicles had been totally destroyed. In a second case recurrent nodule followed removal of the right breast and involved the brachial plexus so intimately that its removal was impossible. Its position had been determined by operation and its malignant character by microscopic examination. It disappeared after two months' treatment, and the patient has remained free from recurrence for eleven months.

All the cases in which post-operative treatment has been employed are free from recurrences. The time elapsed is, however, not sufficient upon which to base definite conclusions. It is noteworthy that sinuses and granulating areas healed more rapidly under treatment, and that in cases of breast amputation all the patients have recovered the use of the arm more rapidly and have gained in weight. One case of hysterectomy for malignant disease has remained free from recurrence for over a year.

Two cases of hopelessly inoperable disease deserve special mention. They illustrate the possibilities of palliation, and one is particularly instructive since it demonstrates the power of this agent over deep-seated disease. It makes it probable that future developments in technique will render this agent effective in deep-seated growths.

The first patient, a lady of seventy, had had for twelve years an atrophic schirrus of the right breast. Fourteen months ago it began to spread rapidly. Roentgen treatment produced a healing, although the course of treatment was abruptly terminated by an accident which confined the patient to bed. This course of treatment, though it healed the ulcer and removed all external induration, did not reach the metastases. Four months later a sudden dysphagia developed. A tumor was found rising above the clavicle on the right side. She was unable to swallow her saliva or a teaspoonful of water, and was kept on rectal feeding for two weeks before she was brought to the city for treatment. The smallest esophageal bougies were

tried, but could not be passed, and brought away blood in spite of the greatest care. She was in a very weak condition when first seen, confined to her bed.

Energetic treatments were applied for ten minutes every other day. The area treated included the axilla, neck, right chest and mediastinum. After the fourth treatment she began to swallow a teaspoonful at a time. At the seventh treatment she drank a glass of egg-nog, and then began to gradually take solid food. The skin withstood the severe treatment remarkably, and gradually took on a dark tan with a parchment-like appearance. So long as a dry stearate of zinc powder was employed there was no ulceration, but a gradual exfoliation of the epidermis. A stearate of zinc ointment applied by mistake produced too great softening, and an ulceration which, however, healed rapidly. The tumor above the clavicle disappeared, the patient rapidly regained her strength, and resumed her usual life. She finds occasional difficulty in swallowing, but is very comfortable. The treatments have been continued for prophylactic reasons, increasing or decreasing in frequency according to the symptoms. Much of the time she has come from her home, a distance of eighty miles, once or twice a week returning the same day.

Although the patient cannot be considered cured, the remarkable relief from a condition that was beyond all surgical aid and a prolongation of life for ten months can be considered a result of the Roentgen treatment. The disease is under control, and her life may be lengthened many more months.

Another inoperable case was seen by a prominent surgeon who refused to operate and advised Roentgen treatment. The patient was very weak, but was finally brought in a carriage for the first treatment. He was about forty years old, and had a sarcoma of the left tonsil that nearly filled the pharynx. The lower border could not be seen and there was a distinct swelling behind the angle of the jaw. Treatments were applied both externally and internally. The patient's general condition rapidly improved, the tumor gradually decreasing in size. This patient has attended to his insurance business for the past two months. The tonsil has become nearly normal in size, showing only slightly below the half arch of the soft palate. He is still receiving occasional treatments and will remain under observation for some time.

The palliative effects in a case of cancer "en cirasse" resulted in a complete freedom from

all ulcerations, and the absorption of a large tumor in the breast that had not been operated upon. When first seen ulcerations and indurations occupied the line of the scar and the region over the sternum, and the case was operatively hopeless. She lived eighteen months after treatment was commenced, and died from visceral lesions that interfered with respiration and deglutition. There were no ulcerations and the tumor mass had disappeared. Such palliation is impossible by other means.

One of the later and possibly more valuable applications of this method of treatment is illustrated by the following cases of neuralgia, though the effect is not entirely analgesic, but also produces a regeneration of the nerves themselves.

This is seen in the effects produced in a case of paralysis of the arm, with a partial paralysis of the leg, which was the result of contracting scar tissue in the motor area. The patient had had an abscess removed ten years before, the relapse was said to have followed a recent accident. The arm was completely paralyzed, the skin of the hand was glazed and free from wrinkles; there was marked ankle clonus and exaggerated knee-jerk, the speech was halting. After nine treatments applied to the motor area through the trephine opening, the patient was able to raise the arm to the level of the shoulder and could grasp and hold small objects. The treatments were applied to aid in the absorption of the scar tissue, and possibly stimulate regenerative processes in the nerve cells. The result cannot be attributed entirely to the rays as the patient continued the use of bromides.

The first case of neuralgia treated involved the eyeball and the supra- and infra-orbital nerves. The pain had resisted energetic medical treatment and local applications. It was controlled by a three-minute treatment and cured by five applications.

The third patient, a man of about forty-five, had been a sufferer from neuralgia of the head and face for ten years. The superior and inferior dental nerves on both sides were involved in the present attack, which had lasted for more than six months with great severity. The teeth were loosened and so tender that he could not close the jaws or chew solid food. His sleep was broken and he was rinsing the mouth with Jamaica ginger to get relief by the counter-irritation produced. Three treatments on alternate days relieved the pain entirely, at the end of eight treatments he could close the jaws and chew solid food. He has received no treatment



for more than three months, and has remained free from pain.

In these cases the treatment must be applied with the greatest care, especially about the face. The object is to stimulate regenerative processes, and overstimulation and injury must be avoided. As in all other treatments, each case is a law unto itself, and the best results can be secured by determining and applying the dose required by the individual.

112 South Twentieth Street.

#### A CASE OF ECTOPIC PREGNANCY IN THE AMPULA.

BY FRED'K D. CRAWFORD, M.D.

MRS. M. L., age thirty-five years; married thirteen years and has had five children; the oldest twelve years, and the youngest three years old. All of her labors were normal and without the aid of instruments. She has had seven miscarriages, the last one May 14, 1903, at ten weeks. Next to last occurred September, 1902. All of these were self-induced by the aid of quinine, gin, etc., except the last. There is no history of syphilis or gonorrhea.

Her last menstruation was July 14, 1903; next to last, June 14, 1903.

It generally lasted one day, amount small, no pain and always regular.

No history of pelvic trouble except backache prior to this, which was undoubtedly due to retroversion.

July 29, 1903; she says she fell while using a pulley line, and struck on her left hip.

August 1, 1903, she had so much pain (which she described as "sharp bearing down or labor like" only she says "they were more severe than she had ever had in pregnancy") that her physician could only relieve her by hypodermic injections of morphia. With this severe pain she had a profuse uterine hemorrhage which lasted more or less until September 9, 1903, the day before operation.

I saw her about the 7th of September in consultation, when I advised operation on the findings of my examination, for this history (such as it is) was not obtained until after operation.

There was a bilateral laceration of the perineum. Laceration of cervix. Uterus in complete retroversion. Right ovary cystic and adherent to an enlarged tube; both were adherent to post-uterine wall low down in the cul-de-sac. Advised curettement, right tubo-oophorectomy, and

ventral suspension. This was done on September 10, 1903, and confirmed my diagnosis except for the ectopic.

The uterus and appendages were congested and on breaking up some of the adhesions (which were recent) found some small, dark, masses of clotted blood in the cul-de-sac.

Upon examination of ovary after removal found it unbroken but cystic.

The tube was unbroken, enlarged especially at the ampula and the connective tissue thickened throughout except at places in the ampula where it was much thinned out, some of these thinned places being elevated but not ruptured. The fimbriae were of a brownish color and had been adherent about the ovary except where ruptured.

In opening the canal of the tube it seemed healthy but the lumen was much enlarged. When I reached the ampula I found it enlarged to the size of a pigeon's egg, and containing the remains of placental tissue and membranes which were slightly adherent to the thinned tubal wall, and so situated that it (seemed to me) would be impossible for any blood to reach the peritoneal cavity past this mass, hence her profuse uterine hemorrhage.

The patient is convalescent without any fever except that due to nervousness.

#### A CASE OF ACUTE TRAUMATIC TETANUS, WITH COMPLETE RECOVERY.

BY MILTON B. DAVIS, M.D.,

of Patchogue, N. Y.

Read before the Suffolk County Medical Society, October 29, 1903.

EARLY Wednesday morning, October 7th, I was hastily summoned to a patient, Henry P—, aged twenty-six years, gardener.

The previous history of this case, as obtained from him, I will give in his own words:

"On Saturday, September 26th, while cleaning my bicycle, and using graphite on the chain, I caught the end of my first finger of my right hand between the chain and sprocket wheel while it was revolving, and completely severed the end midway through the nail, the part dropping to the ground. I bound up the finger and started on my wheel to the nearest doctor, but found him out. I succeeded in finding one at home, who told me to bring the part and he would replace it, which he did, binding the finger up."

When the patient was asked how long a time intervened from the time of the injury to the

dressing of the wound, he said, "As near as I can judge, about an hour."

"The next day, Sunday, September 27th, the dressings were removed and the finger wrapped in plaster of Paris bandage, and I was told I could go to work. I returned the following Friday, the seventh day from the injury, October 2nd, complaining of a throbbing in the finger; when the bandage was removed and the finger found apparently to be doing well. On Sunday, October 4th, the ninth day, my neck felt stiff, and I thought I had taken cold. On Monday, the tenth day, I felt worse, with an aching about the jaws, but went with a sailing party to the beach, where, in landing, I got my feet wet. I returned home in the afternoon feeling wretchedly, and being requested to harness the horses to the carriage in the barn, found I was unable to do so, being so stiff and sore. My employer found me lying on the straw groaning with pain and hardly able to speak. He said I seemed pretty sick and I had better get to my home in Southampton, where I could be cared for, giving me my wages and car fare. I arrived there that evening and, with some difficulty reached the house of my foster parents. I found them both ill, and my sister in a hospital in the city. They did the best they could for me, giving me a sweat, believing I had a severe cold. I ate nothing that night, as it pained me very much to swallow and to move my jaws. The next morning (the eleventh day), I decided to return to Patchogue and go to a friend's house, where I thought I could stay for a few days, and where I could be cared for, as it seemed to me I was getting helpless. Upon my arrival I was about an hour getting from the depot to Main Street, a distance of a quarter of a mile, walking on my toes in a cramped position, as I could not put my heels to the ground; knees bent and staggering, and using the fences to help myself along. In trying to speak I could not make myself fully understood. (Eye witnesses bear him out in this statement.) This was about 10 o'clock in the morning. My bowels had not moved since early Monday morning, and the last I had urinated was about midnight of that day. Becoming rapidly worse, a bus was called and I was removed in the afternoon from my friend's house to my former boarding place on West Street and put to bed. When my friends wanted to call a physician that night, I said, 'Wait until morning, I think I will be all right.'"

The next morning, Wednesday, October 7th, the twelfth day, at 7 o'clock, I saw this case for

the first time, and found the patient in bed suffering intensely, with the following symptoms: Spasms occurring continuously, lasting from ten to fifteen seconds, with intervals of five to ten seconds, each spasm terminating in prolonged groans and yells. The slightest sound or lightest touch increasing the length and severity of the spasms. Rigidity of chest walls, marked opisthotonos and the characteristic *risus sardonicus*; jaws firmly locked; inability to raise the eyelids beyond forming a mere slit; difficult and painful deglutition; muscles of the back and lower limbs perfectly rigid, the arms alone being freely moved; the patient wholly conscious, bathed in profuse perspiration. An examination of the right hand revealed a black and gangrenous end of the index finger, and when pressed foul smelling pus oozed from all sides of the wound. The temperature taken in the axilla recorded  $99\frac{1}{2}^{\circ}$ , pulse 62, full and strong. I will say just here that at no time was the temperature above  $100^{\circ}$ , taken in the axilla, and on one occasion only reaching that mark, which I will refer to again further on. The treatment pursued was as follows:

October 7th, the twelfth day, chloroform was used freely and often, catheterization of bladder and enema of hot water for the bowels. Through a broken front tooth nourishment was given in the form of milk and liquid peptonoids every hour, the first nourishment taken since Monday afternoon. A solution of chloral hydrate and potassium bromide, equal parts, grains 10, every two hours, a tablet of morphia, quarter of a grain and atropia sulph., 1-150 of a grain, given hypodermically every two hours. That evening patient complained of less pain and difficulty in swallowing; spasms of shorter duration and not so frequent. At midnight gave two cathartic pills and before morning reduced the amount of morphia and atropia, and increased the chloral and potassium solution to 15 grains each every two hours.

October 8th, the thirteenth day, treatment the same. About noon a slight relaxation of the jaws was noticed, so that the tip end of a spoon could be introduced between the teeth. Spasms about the same. Decided to amputate the joint of the finger, but had to desist because of the increased nervousness of the patient, and decided to wait until the next day. Micturition occurred with some hesitancy; but a free evacuation of the bowels. Began the use of carbolic acid inunctions. At midnight there was a further relaxation of the jaws, about quarter of an inch. Pushed the

chloral and potassium solution to 20 grains each every three hours. Temperature  $99\frac{1}{2}^{\circ}$ , pulse  $58^{\circ}$ , good. Perspiration not so profuse.

October 9th, the fourteenth day. In the morning found the patient sleeping and was informed by the nurse that for 15 minutes there had been no spasms. Much improvement through the day was noticed. Removed terminal phalanx of finger, leaving the wound open, using moist dressing. Decreased the chloral and potassium solution to 5 grains every two hours. Temperature and pulse the same as the preceding day. No pain or difficulty in deglutition; action of bladder free and normal, but no movement of the bowels.

October 10th, the fifteenth day. Called in haste at 1:30 A.M. Patient was found bathed in profuse perspiration; pulse 40 and somewhat weak; temperature  $100^{\circ}$ . Gave whiskey, half ounce in milk every half hour until 4 A.M., after which continued stimulants through the day in smaller quantity. Gave an enema of hot water and quarter grain of morphia by the mouth. Nurse informed me that patient seemed particularly bright up to the hour of 1 A.M., having had but three light spasms during all of the previous evening, but would mutter to himself, although conscious and rational in his talk when spoken to. Believing his condition due to mental excitement and depression, I gave him at three hour intervals chloride of gold and soda, in capsules of  $\frac{1}{40}$  grain each, until four had been taken, when I ceased giving them. Mental condition improved. A natural movement of the bowels and bladder occurred in the afternoon. Temperature  $99\frac{1}{4}^{\circ}$ , pulse 64. Wound found to be doing well and was redressed. Spasms short and at longer intervals.

October 11th, sixteenth day. Patient perfectly rational; jaws relaxed to half an inch; able to move lower limbs and bend the knees. Patient asked for more nourishment, which was increased and varied; bowels moved naturally and copiously. Began antitoxine injections subcutaneously giving 30 c.c., followed eight hours after with 50 c.c. Several professional brethren called with me in the afternoon to see the case. Patient when asked to describe his sensations, said, he knew when the spasm would occur by a severe pain in the small of back, running up the spine to base of brain, thence radiating to the pit of stomach, with feeling of faintness, then spasm. Temperature Sunday night  $99^{\circ}$ , pulse 80 and good. This was three hours after the first antitoxine injection. Telegraphed to State Laboratory at Albany for antitoxine and received 600 c.c.

Monday, October 12th, seventeenth day. Spasms not more than three in the 24 hours, antitoxine continued, patient bright and cheerful, medicines decreased, temperature  $99^{\circ}$ , pulse 68, good.

Tuesday, October 13th, eighteenth day. Spasms light and several hours apart. Patient complained of pain in muscles of lower limbs and groins. Able to move from side to side. Severe itching of the skin.

Wednesday, October 14th, nineteenth day. One or two spasms of a second or two duration. Patient bright and cheerful, but said he felt as though he had been pounded. Evacuation of the bowels and normal action of the bladder.

Thursday, October 15th, twentieth day. Patient doing well.

Friday, October 16th, twenty-first day. Ceased antitoxine and all medicines.

Saturday, October 17th, the twenty-second day, patient somewhat nervous. Returned to chloral solution and bromide, 5 grains each every two hours.

Sunday, the 18th, twenty-third day, the same continued. From that time to the following Thursday patient rapidly convalesced and on that day for the first time patient was bolstered up in bed. Sunday, October 25th, the 30th day patient was able to leave his bed and was placed in a chair. There was no complete relaxation of the jaws until this date. Wednesday, October 28th, thirty-third day, patient walked downstairs. Dismissed case.

Although beginning the antitoxine injections rather late, whatever results my former treatment was accomplishing, I am much inclined to credit the antitoxine as being the means of effecting a speedy and happy termination of this case.

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#### SOME PATHOLOGICAL SIMILARITIES BETWEEN APPENDICITIS AND CHOLECYSTITIS.

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BY WALTER C. WOOD, M.D.

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Read before the Pathological Society, Oct. 8, 1903.

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THE pathology of the gall-bladder and the pathology of the vermiform appendix have many features in common. This fact may not be appreciated by those whose practical knowledge of pathology comes from the autopsy table where end results are manifest, but is well understood by those who see the various developmental stages of inflammatory processes. It seems well at this time to call attention to this similar-



ity, for in some measure it will simplify and unify our conceptions of adequate treatment. The proper treatment for the various stages and types of appendicitis is now reasonably well established, although—on account of the difficulty of appreciating the exact pathological condition present in every case—there may be an apparent disagreement. It is not, however, a controversy concerning the principles involved, but rather concerning the application of those principles in any given instance where the exact data are not perfectly known.

But, fortunately in gall-bladder disease, the diagnostic data are more exact, and the practical application of the principles involved offers less uncertainty in any given instance.

Therefore, it is well worth our while to attempt to establish those principles more fully, and as principles of treatment must rest on pathology, I will point out some of the pathological features common to both diseases.

In structure the organs are similar—a mucous coat, thrown into many folds or rugæ, lines them both, these folds at the exit, in both cases, reaching the dignity of valves. The strictures, following inflammation of mucous surfaces in all parts of the body, therefore, even when the scar tissue is slight, offer much impediment to the proper exit of the contents of the organ. Given a complete occlusion in either viscus, the glands of the membrane produce sufficient secretion to distend that viscus to a point of producing symptoms and risking health or even life. In both organs the occluded fluid is occasionally sterile, or cystic, but more often becomes purulent.

The appendix, however, has more lymphoid tissue, which permits more rapid swelling consequent upon inflammatory agencies.

The muscular and connective tissue coats are better developed in the gall-bladder and thus more resistant to disease.

The peritoneal coat, partly, but not completely, invests both organs.

The appendix usually has a mesentery for two-thirds of its length, but, not seldom, is the mesentery absent and the appendix lives in close contact with the cecum for more or less of its length, there being no peritoneal separation between them. At other times part of the appendix is retro-peritoneal, being simply covered with the peritoneum. These variations are so common as to be seen frequently by all operating surgeons and in diseased states of the organ, give a train of symptoms that point to the exact anatomical condition. The gall-bladder, on the other hand,

has normally the relation to the peritoneum that is the exception in the appendix, and exceptionally, the relation that is normal with the appendix. That is, the gall-bladder—especially one enlarged and chronically diseased—may have a well-developed mesentery that permits its fundus to move quite freely in the abdominal cavity. This separation from the liver seems to be due to the weight of the organ. I have seen the fundus of the gall-bladder extend even to the crest of the ileum. Here, as in the appendix, do we have both intra- and extra-peritoneal spread of infection.

As the appendix in the female may have a secondary peritoneal ligament from the ovary, so the gall-bladder may have a peritoneal ligament to the transverse colon. The arterial circulation of the appendix is a terminal artery without anastomosis, which fact is very important as explaining the rapid gangrene of the organ. In like manner the gall-bladder is supplied by a single artery, the cystic branch of the hepatic, but it has many anastomosing branches over the wall, which fact doubtless protects it from necrosis.

The adhesions forming about both organs as the result of the local peritonitis accompanying an acute attack, remain to cause a similar set of symptoms. They lessen by pressure and kinks, the lumen of the cystic duct, and the base of the appendix, thus predisposing to succeeding attacks; and by dragging on adherent intestines cause pain and digestive discomfort. The contracted and inflamed gall-bladder imbedded in a mass of adhesions is exactly like the chronically inflamed appendix that is so commonly found.

While the circumscribed abscess outside the organ resulting from slow perforation is so well known in appendicitis, it occurs also, but less commonly, about the gall-bladder. I recall three such cases at St. Mary's Hospital within the last few years.

The relative frequency with which gangrene develops in both organs is a matter of vital importance.

While perhaps the professional mind is more fearful of its development in every case of appendicitis than the statistics will warrant, it is not sufficiently alive to the liability of its occurrence in cholecystitis. A gangrene of the mucous membrane of the gall-bladder over its entire extent, a local gangrene perforating the organ at its fundus or at its neck, and even a gangrene of the entire gall-bladder, each of these several varieties I have seen on more than one occasion. Its proportional frequency and its rapidity are of course

less, but its mortality is even greater than when the same condition develops in the appendix.

The relation of gall-stones to inflammation of the gall-bladder, and of fecal concretions to inflammation of the appendix are worthy of consideration.

The old pathology dwelt much on the gall-stone and but little on infective processes, and the treatment deduced was, I believe, erroneous. In the same way and not many years ago, the fecal concretion, and fruit seeds were held to be the principal factors in the causation of appendicitis. In both instances, at least as concerns the primary attack, we believe that infection is the governing agent.

First concerning the appendix:

Foreign bodies are found in 3 per cent. and fecal concretions in 50 per cent. of appendicitis cases. We find also these same concretions in appendices apparently perfectly healthy. We also know that the colon bacillus, for example, found normally in the intestine, is also found in both the healthy and diseased appendix, and we accept the statement that the chief cause of appendicitis lies in the stagnation of infected secretions, it being immaterial how such stagnation is brought about. Twists, kinks, adhesions, stricture, catarrhal swelling, all share with the concretion in producing the stagnation. It is an undrained infection that produces the disease, the severity of the process being determined by the intensity of the infection.

Concerning the gall-bladder:

It is well known that gall-stones often exist in this organ for years without causing symptoms. Records of 2,000 autopsies show that in 5 per cent. of males and 20 per cent. of females gall-stones are found. It is not equally well known that acute cholecystitis occurs without gall-stones being present. Such cases are reported and have also come into my experience. They are comparable with those frequent cases of appendicitis where no concretions are found.

Concerning the formation of gall-stones, it is now well established that a catarrhal inflammation of the mucous membrane is the primary step. The cause of this catarrh has been ascribed to the chemical constituents of the bile, to constitutional dyscrasia, and to gastro-intestinal infection. The latter is now the accepted view, but it comes in collision with the long-recognized fact that the bile has antiseptic qualities. Bile removed from a healthy gall-bladder is sterile, but in 18 out of 23 cases of cholelithiasis it was not so. Experimentally, it is well proven that the injection

of pure cultures of the colon or typhoid bacillus into a healthy gall-bladder has a negative result. These facts mean that a healthy biliary apparatus can free itself from infection. In order that the infected fluid should transmit itself to the tissues surrounding it, partial stasis is necessary. This is but an application of the general principle concerning the drainage of all infected cavities. The stasis is accomplished by the swelling of the mucous membrane of the ducts as the infection proceeds upward from below; or by twists and kinks in the ducts, by adhesion, by traction from displaced viscera, by corset and belt pressure, or by weight of a gall-bladder that is constantly full of bile and remains so because of sedentary habits.

Experimentally, partial ligation of the cystic duct with injection into the gall-bladder of mild cultures will produce gall-stones in rabbits.

The catarrh results in the exfoliation of epithelial cells which form a nidus, or point, of crystallization for the bile salts.

Within the succeeding layers of cholesterol both micro-organisms and epithelial cells are found. Once given the gall-stones within the gall-bladder or duct, irritation, stasis, and consequent succeeding attacks of inflammation easily follow.

At one time it was taught, and is even now widely accepted, that the various inflammatory attacks to which the gall-bladder is liable, signified that a stone was attempting to pass. Such is probably the case in a small proportion of instances, yet on opening such a gall-bladder at such a time, it is common to find one or a few stones of such a size that they cannot possibly be conceived as engaging in the cystic duct.

Clinically, one is impressed with the fact that in only a small proportion of patients giving a history of repeated inflammatory attacks of the gall-bladder, have gall-stones been found in the stools. This may be in part due to lack of proper examination, but when considered in connection with the finding in gall-bladders opened at operation, is more reasonably explained by assuming that in the majority of cases no stone has left the gall-bladder. Gall-stones passing through the common duct give jaundice, yet 80 per cent. of gall-stone patients show no jaundice, which also tends to prove that the migration of gall-stones is infrequent. This argument has additional force when we remember that jaundice is also occasionally produced by external pressure.

Because such a large proportion of our cases of cholecystitis will recover without surgical interference, does not prove that the recovery is

due to the passage of an obstructing gall-stone. The same thing occurs in the appendix where the concretions found are almost universally too large to pass back into the intestines. The reasons why the gall-bladder more often survives the invasion of the infection than does the appendix, is its more resistant anatomical construction and more adequate circulation.

Occasionally gall-stones are found in young persons during the first inflammatory attack. I recently removed a dozen such stones about three days after the onset of first attack in a young woman of twenty-three years. This does not disprove the theory that a catarrhal inflammation has preceded the onset of the symptoms, which is shown to be the fact by the changes in the gall-bladder evidently of longer duration.

Likewise the stones that form in the intra-hepatic ducts, occur only when there are contractions in those ducts such as are found in cirrhosis.

In determining the appropriate treatment of any case of appendicitis, we are guided in great measure by our estimate of the severity of the infection and do not consider the question of concretions.

In the same way, therefore, when considering the appropriate treatment for a case of cholecystitis, I believe that we should fix our attention on the severity of the similar infective process and the resisting power of the organ and the individual, and not be led astray by conjecture concerning the possible relief of symptoms by the passage of gall-stones.

(Discussion on p. 26.)

## PROCEEDINGS OF SOCIETIES.

### THE MEDICAL SOCIETY OF THE COUNTY OF KINGS.

STATED MEETING, NOVEMBER 17, 1903.

The President, C. N. COX, M.D., in the Chair.

There were about 120 members present.

The meeting was called to order and the minutes of the previous meeting read and approved.

The President announced the deaths of the following members since the last meeting:

John Lyle Henry Waldie, L. I. C. H., 1896, died October 18, 1903. Member from 1898 to 1903.

William Francis Moran, L. I. C. H., 1895, died November 3, 1903. Member from 1895 to 1896.

### REPORT OF COUNCIL.

The following candidates for membership were accepted by the Council:

Donald S. McNaughton, L. I. C. H., 1903.

Archibald I. Smith, P. & S., N. Y., 1902.

H. W. Post, University of Vermont, 1876.

D. R. Lloyd, University & Bellevue, 1901.

F. L. Cochrane, P. & S., N. Y., 1900.

Jacobus Loewe, L. I. C. H., 1897.

### APPLICATIONS FOR MEMBERSHIP.

The following applications for membership were received:

Maximilian T. Rauh, 15 Palmetto Street., L. I. C. H., 1897. Proposed by A. H. Brundage; seconded by E. H. Bartley.

Frederic C. Eastman, 1452 Dean Street, L. I. C. H., 1899. Proposed by William Browning; seconded by J. M. Winfield.

Vincent J. Gallagher, 24 Lenox Road, N. Y. University, 1892. Proposed by A. H. Bogart; seconded by O. A. Gordon.

### SCIENTIFIC PROGRAM.

1. *Presentation of the Library of the Physicians to the German Hospital and Dispensary of New York.* By J. M. Winfield M.D., Directing Librarian.

*Brief History of the Library.* By Herman G. Klotz, M.D., New York Librarian of the Library of the German Dispensary.

2. *Some Results in Roentgen Ray Diagnosis and Therapeutics, with Lantern Slide Illustrations.* By Charles Lester Leonard, M. D., Philadelphia, Pa.

### EXECUTIVE SESSION.

Dr. William Browning made a motion that a suitable memorial tablet be placed in the Library Building, giving the name of the late Librarian of the German Dispensary Library, Dr. H. G. Klotz, and the names of the donors of the German Dispensary Library to the Kings County Medical Society Library, the wording and direction of same to be under the supervision of the Directing Librarian, Dr. J. M. Winfield. Seconded and carried.

Dr. William Browning nominated Dr. Herman G. Klotz for honorary membership.

Adjourned.

WM. S. HUBBARD,  
Secretary.



THE MEDICAL SOCIETY OF THE COUNTY OF  
KINGS—SECTION ON PEDIATRICS.

STATED MEETING, NOVEMBER 13, 1903.

The President, W. M. A. NORTHRIDGE, M.D., in  
the Chair.

R. TAYLOR WHEELER, M.D., Editor.

PAPER: THE MANAGEMENT OF DISTURBED LACTA-  
TION.

DR. JEROME WALKER: The importance of maternal nursing or the "natural feeding of infants," is in a general way acknowledged by most physicians.

But, too often, in these days of sterilized milk and numerous "baby foods," many physicians are inclined to advise artificial feeding, either because the mother cannot nurse or does not wish to. The physician finding it up-hill work to increase the quantity or improve the quality of the mother's milk, relies upon artificial food.

The more a mother is "civilized" and the more highly strung is her nervous system, the less qualified she becomes to furnish an ample supply of good milk for her offspring.

The best nursers are the eaters of good substantial food, women who have abundant sleep, who work hard physically and who are frequently out in the open air. Fashionable women do not, as a rule, care to bother with nursing. It interferes with their going to theatres, teas, receptions, etc., and demands a bothersome and repeated rearrangement of their clothing.

It seems sometimes as if satisfactory maternal nursing is becoming obsolete, not only among the well-to-do, but also the great middle class, which is gradually aping the customs and manners of those better off, financially.

Then, also, a glance at the medical journals of to-day reveals very few articles on maternal nursing—while there are many devoted to various methods of artificial feeding.

If we grant the importance of maternal nursing to strengthen the bond of a mother's love, to give the child a good start in life, which is everything, until later on it may readily digest and assimilate more solid food, to assist the uterus of the mother, and the appendages of the uterus, also to readily recover normal size and tone, we presume that the mother's milk is of sufficient quantity and of good quality.

As to defects in the child, which will not al-

low of good digestion of good milk, we are not now concerned.

*Defective Quality and Quantity of Milk.*—Noting frequently the weight of the child is the best general test as to the suitability as to quantity and quality of the mother's milk.

Bowel and stomach disturbances in the nursing child point mainly to defective quality, and loss of weight, softness of adipose tissue and flabbiness of muscle mainly to defective quantity.

I use the word "mainly" because the effects above stated are not *always* the result of above causes.

Oftentimes, nursing is an intricate problem, for, as with some wet-nurses, what one child will not thrive upon another will.

The chemical and microscopical examinations of the nurse's milk in the search for defects, *i.e.*, too much or too little casein, sugar, water, fat or salts, are valuable. But this topic I leave for Dr. Bartley.

So intimately sometimes are the quality and quantity of the milk related that what improves one, improves the other. It is not always so.

My own experience has shown:

1. That the various medicinal and much-advertized galactagogues have been of little value.

2. That cow's milk taken by the nursing woman in such quantity as *can be digested* improves the quality and quantity of the woman's milk better than gruels, panadas, soups and porridge. A mixture of one teaspoonful of tincture of ginger with one tumblerful of slightly sweetened milk is valuable, especially taken at night.

3. That an abundance of plain, wholesome food and regular action of the bowels are important. On the contrary, gross eating and poor defecation not infrequently lessen the quantity and deteriorate the quality of the mother's milk.

4. That regularity in times of nursing is most important, and also allowing the child to take all it will at each nursing. Most babies, if well supplied as above during the day, will nurse last at night about 10 or 11 o'clock, and not again till about 5 or 6 a. m. If allowed to sleep on the mother's arm the child soon gets into the bad habit of "worrying the nipple," *i.e.*, of too frequent nursing. The mother's strength is pulled down, the milk ducts are irritated, and the supply of milk is diminished.

5. That every-day exercise by both mother and child in the *open air*, but not to the point of tiring, helps the child's digestive powers and

increases the supply of milk. Exercise in-doors, even with the windows open, will not take the place of out-door exercise.

6. That a cheerful disposition goes far towards keeping the milk in good condition. Anger, worry, excitement and insufficient sleep have the opposite effect. Some women, therefore, will never be good nursers.

7. That every nursing woman should wear easy-fitting, comfortable clothing, especially about the chest, abdomen and neck, and should keep heavy distended breasts from sagging.

8. That carefully selected tonics, laxatives and even hypnotics are at times necessary.

*Mastitis.*—Irregular and over-nursing, constriction of breasts and pressure on nipples by tight clothing blows upon the breast, sometimes bumps by the child's head, the sagging of large and unwieldy breasts having no sufficient support, the accumulations of dried mucus and milk upon the nipples are more frequently the causes of inflammation of the breast than "cold." The small, retracted nipple which is with difficulty seized by the child, and the large cauliflower-like one, equally hard to grasp and retain, are almost like danger signals, as nursing through them requires persistent, hard efforts, which may readily end in a mastitis.

To empty a distended breast is a matter of importance. Most of the breast pumps do more harm than good, sometimes starting an inflammation. Regular gentle suction by a toothless puppy is of value, and the woman who used to be known as the "natural breast pump" was a god-send. But toothless puppies cannot always be obtained, and the "natural breast pump" is no more, and reliance must be had on support, gentle rubbing towards the nipple with or without camphorated oil, warmth, cutting down the quantity of fluid to be drunk by the mother and perhaps above all, applying firm but gentle pressure and support by adhesive plaster for two or three days. Cut a piece large enough to cover the breast into the shape of a maltese cross, with a hole in the centre for the nipple to pass readily through. Overlap the adjoining edges of each wing of the cross, smoothing the whole on the breast, the large end of each wing of the cross reaching to the skin beyond the base of the breast. The child may be allowed to nurse occasionally, or a simple tube and glass may be used for suction.

If inflammation goes on and pus forms, the case passes into the domain of surgery. Hence every pediatricist should be a surgeon.

## THE BROOKLYN SURGICAL SOCIETY.

REGULAR MEETING, OCTOBER 1, 1903.

The President, W. F. CAMPBELL, M.D., in the Chair.

### RESECTION OF INTESTINE FOR MULTIPLE FISTULE, FOLLOWING OPERATION FOR SUPPURATIVE APPENDICITIS.

DR. ARTHUR H. BOGART reported the case of a patient nine years of age, who had always been healthy up to the illness which began twelve days before his admission to the hospital. He was taken sick with abdominal pain, nausea, vomiting, and constipation, accompanied with extreme tenderness over the entire abdomen. He was ill for three or four days, at the end of that time he improved somewhat, but did not get entirely well. On the day before admission to the hospital he was taken ill again with the same symptoms, only in an exaggerated form. A diagnosis of appendicitis was made by his family physician, Dr. Guenther, and the patient sent to the hospital for operation.

When first seen by the speaker his temperature was 99° and pulse 100. His tongue was clean, and he did not have the appearance of being very ill. The abdomen was considerably distended, particularly at its upper portion, and was more or less tender all over, notably so below the umbilicus, where it was flat on percussion from one side to the other.

It was thought that he had had an appendicitis, which had ruptured and set up a peritonitis involving the lower or pelvic portion of the peritoneum, and for this reason, and because of the absence of localizing symptoms an incision was made in the median line.

Upon opening the abdomen a considerable quantity of pus escaped, and the intestines were found everywhere matted by firm adhesions. In breaking up these adhesions with the finger for the purpose of liberating collections of pus which were everywhere present, an opening was made in the bladder which the operator was conscious of at the time, but was unable to find.

There was a great deal of oozing from these dense adhesions, so much so that gauze was introduced for drainage in various directions.

For two days following the operation the patient did fairly well, but the bowels did not move. At the end of that time he began to vomit, his pulse increased in rapidity, and he began to show

signs of rapid dissolution. His vomiting was persistent, and the constipation marked, showing all the signs of intestinal obstruction. He was taken to the operating room and all the drains removed, which was immediately followed by a free escape of feces and urine from the abdominal wound. The distention which had previously been marked, immediately disappeared, and he began to improve and continued to do so for a number of days.

For about four weeks after this time the patient's temperature varied from 99° to 102°, and he remained in rather a weak condition. At the end of that time the discharge of pus from the wound had practically stopped and patient had so far improved as to be in fairly good condition generally, but in a deplorable one locally, as the entire contents of the intestines and bladder were escaping through the abdominal wound.

The question now, was, to close these openings. The opening in the bladder was on its anterior surface and easily accessible. The opening in the intestine was also quite accessible, presenting as it did in the wound. The condition of the patient was not such as to warrant any severe operation at this time. He was therefore taken to the operating room and the bladder opening closed with silk sutures and the opening in the intestines closed with a Lembert suture, a drain introduced, and the abdominal wound partially closed.

Following this operation, which did not take very long, and was accompanied by very little shock, he did fairly well for about thirty-six hours, when he again began to vomit and to show signs of intestinal obstruction, going into collapse and requiring an infusion to revive him. The suture which had been introduced into the intestine was removed and was immediately followed by the escape of the intestinal contents and subsidence of the alarming symptoms. It was evident, therefore, that instead of simply closing the opening in the intestine that the lumen had been so reduced by the introduction of this suture as to prevent anything from passing beyond. After this experience and on account of the condition of the patient it was thought that it might be best to attempt the closure of these openings one at a time, and four attempts were made to close the opening in the bladder. In each instance the suture held for about one week, and then gave way.

At the time of the last operation a perineal section was done to insure perfect drainage of the bladder, and avoid tension on the sutures; this, however, was without apparent benefit, the sutures

giving way in about a week, probably the result of infection.

The general condition of the patient continued to improve, however, in spite of these numerous operations, and it now became evident that something more radical would have to be done.

On July 17th, the abdominal incision was enlarged, the edges of the bladder fistula freshened and sutured with chromic gut sutures. The intestine, which was firmly adherent and bound down in the pelvis, was with difficulty loosened from its attachments and brought up into the wound. It was then found that instead of there being one perforation, there were five, and that in order to get rid of this portion of the intestine, which was so badly mutilated, it would be necessary to resect about eighteen inches, which was done, and an end to end anastomosis done with the Connell suture. The abdominal wound was partially closed and a small drain introduced.

This operation occupied about two hours and twenty minutes, at the end of which the patient was pretty well shocked, but responded promptly to appropriate stimulation. There were some nausea and vomiting, but at the end of twenty-four hours he had passed gas. In forty-eight hours the bowels began to move and continued to do so normally thereafter.

In about four days one of the bladder sutures gave away, and he again began to pass some urine through the abdominal wound. At the end of four weeks, however, it had entirely healed and the patient went on to a complete recovery.

The speaker presented the piece of intestine upon which he did the preliminary work. It showed very well the result of the suture after it has been introduced. There were three anastomoses. In one there has been a resection; in the other two the intestine was simply divided for the purpose of introducing the suture.

#### *Discussion.*

DR. W. F. CAMPBELL said that Dr. Bogart had presented a singularly interesting case, both as to complications and happy results which came from the last operation. He had also opened up an interesting field for discussion, viz.: as to the best method for direct end to end anastomosis; whether we shall use the old Lembert-Czerny suture or the newer Connell through and through suture. By the literature of last year, which we have gotten from Connell and Turek, it would seem the results they have gotten with this suture are almost ideal. He had had no experience himself, but in one or two experiments he had carried out, using the modification of Connell's



suture, as suggested by Turck, viz.: using instead of an interrupted, the continuous through and through, it had seemed to him that there had been more or less of a constriction resulting, which might be the cause of an intestinal obstruction.

DR. L. S. PILCHER said that the very remarkable result which had been obtained in this extremely interesting case commanded admiration. One thing that the operator had in his favor, which a surgeon does not always have in dealing with such cases is, that he had to do with a naturally rugged, robust boy, who was young, when the tissues were endowed with abundant plastic energy. Apparently he was able to stand almost anything, and as a result of it the efforts of the surgeon had been ultimately crowned with success. It is quite apparent from the specimen shown that the excision of the affected portion of the intestine was the only thing to do.

As to the question of methods of anastomosis, academically he had been led to prefer the general method known as the Connell method of suture, the through and through application of the suture involving the whole thickness of the intestine. The slight modifications which may suggest themselves to the operator at the time in the way they shall be applied do not change in any way the real character of the suture under consideration, which is the complete through and through piercing of all the walls of the intestine in sewing them together, having the knot on the mucous surface when it is tied. He had not had an opportunity to apply that suture in practice in the course of the upper intestine, but in one or two cases where he had applied it in the lower part of the rectum, where the ends of the intestine have been brought together after exsection of the carcinomatous portion of the intestine, he had been rewarded by ideal union.

Another method of dealing with excisions along the continuity of the small intestine, if one did not feel so sure of the sufficiency or perfectness of the end to end suture, would be to close the two ends of the divided intestine by a purse string suture and then bring the two portions of intestine together by a lateral suture with a button or with the ordinary method of lateral anastomosis so familiar in use in gastro-enterostomy.

The question of the possibility of obstruction from a diaphragm is well taken, and all cases of end to end anastomoses certainly are open to that possibility. The other method spoken of is not so likely to be attended with obstruction from that source, for an abundant communication between

the two portions of the intestine by a lateral anastomosis can always be secured.

DR. A. T. BRISTOW said that it was ungracious to criticize any part of this most successful procedure of Dr. Bogart's, still, he would like to ask why, when he put in gauze for the purpose of drainage, he put in gauze which had iodoform in its meshes, and why, in a child he introduced so large a proportion of iodoform gauze? He believed that when we use gauze for draining, we want plain gauze. We depend on the capillarity of the gauze to drain, and when we rub in solid material into the meshes to any extent we destroy the capillarity of the fabric.

DR. A. H. BOGART said there was one point he forgot to mention in describing the operation: that portion of the intestine below the resection (or the distal end) was very much contracted, which added somewhat to the difficulties in the operation. As a matter of fact, however, he found it easier to do this work on the living subject than upon the cadaver. The tissues seem easier to handle. With regard to diaphragm formation in this suture, that is a point Connell makes. He says there is no diaphragm, and the specimen showed that there was no obstruction. In the case of this boy, after his suture had been completed the two mucus surfaces could be moved freely over each other and no diaphragm formation could be found. Replying to Dr. Bristow, he wished to say that it was not all iodoform gauze; there was some, but most of it was sterile bandage. He agreed with every word said in that respect.

#### PERFORATION BY DUODENAL ULCER: OPERATION: RECOVERY.

DR. O. A. GORDON reported the case of a man thirty years of age, who gave a history of occasional attacks of vomiting during the past two years. The vomited matter never contained blood; and as far as his knowledge goes he had never passed blood by rectum. The attacks were frequently accompanied by pain in the hypochondriac region.

On April 1st, about 5 P.M., while at home, he was suddenly seized with an intense tearing pain in the abdomen, which caused him to fall from his chair to the floor. The speaker saw him within an hour, and found him in a state of collapse, with board-like rigidity of the abdominal muscles and marked tenderness over the upper right quadrant. He made a diagnosis of perforation of the stomach or duodenum, and advised immediate

operation. This opinion was concurred in by Dr. W. C. Wood, and the patient removed to St. Mary's Hospital five hours after the accident. Upon opening the abdomen a perforation of the first portion of the duodenum was found, into which the operator could insert the tip of his index finger, and from which intestinal contents were escaping. The perforation was closed by sutures of fine silk, the abdominal cavity flushed with salt solution and drained; all nourishment and fluid were given by the rectum for a week.

The recovery was uneventful, and the patient at the present time (seven months after the operation) is in better physical condition than for years.

#### *Discussion.*

DR. W. C. WOOD said that in this case of duodenal ulcer rupture reported by Dr. Gordon, there are one or two features not mentioned that are of interest. As far as his knowledge goes, this is the first case of that kind shown at the Surgical Society for many years. Most of these cases that have been reported, have been fatal. A large proportion of these duodenal perforating ulcers unfortunately are diagnosed on the autopsy table.

The second feature in regard to this case is this: that the rim of the ulcer was hard and indurated, almost cartilaginous in character, and a proper and complete closure of the duodenum at that point, enclosing an ulcer which would admit the finger, was evidently impossible. It was not a complete water-tight surgical closure, such as we would like in ordinary intestinal work. A complete closure at that point would have meant a resection or obliteration of the duodenum by turning in its obliterated wall; therefore, the ulcer healed to a great extent by natural methods rather than by suturing. This is a point of importance in regard to all intestinal work. We sometimes try to do too much.

It was by the absolute absence of food by the mouth and the long period of rectal feeding,—one week, and practically longer, since during the second week the feeding was limited—that the man made a recovery. Accurate suture was not secured. The duodenum was so infiltrated the ulcer stood open, and it could not be turned in.

It was also important to make the diagnosis accurately, so as to have the work directly under the finger and the drainage direct.

DR. A. T. BRISTOW said that there was one point he would like to make. This ulcer was hard and cartilaginous, according to Dr. Wood, and the healing was by granulation. There must, therefore, have been a large area of cicatricial

tissue in the duodenum. The future of that man is not by any means assured, because we do not know what this cicatricial tissue is going to do. We know that in other parts of the body it leads to contraction, and it seemed to him there may ultimately occur a contraction of the duodenum which will produce trouble. It would have been an unsound surgical procedure in this case, at the time of operation, particularly in view of the condition of the duodenal ulcer, to have done a gastro-duodenostomy, particularly as it was manifestly impossible to close the ulcer. It was evident there would have to be healing by cicatrization. If the patient could have stood the operation, it might have been advisable to have done a gastro-duodenostomy.

DR. O. A. GORDON said, in reply to Dr. Bristow's criticism, that he would say that undoubtedly from a theoretical standpoint, it might have been better to do a gastro-enterostomy, but to take a patient who has been in a state of collapse for five or six hours, at 12 o'clock at night, it is not, in his opinion, a good case for such an operation.

DR. WOOD, who was present at the operation, spoke of the indurated condition of the margins of the ulcer; there was some difficulty in getting the sutures to hold, but yet when it was finished the perforation was closed, and they hoped it would not leak, and it did not, as the result shows.

#### BRONCHOCELE.

DR. O. A. GORDON reported the case of a young man 17 years of age, suffering from an enlarged thyroid gland. A few months previously he had noticed an enlargement of the neck, which increased rapidly, until from wearing a No. 14 collar, he was obliged to wear a No. 16½, and that with considerable discomfort. He suffered so from dyspnea that he could not walk half a block without discomfort, stating that it seemed that he would suffocate. He discontinued attendance at school and all active exercise.

The speaker suggested operation as the only thing likely to afford relief. He and his parents strongly opposing this, he was put upon the fresh thyroid gland of the sheep, 60 to 80 grains, three times a day. Improvement began within a week, and at the end of two months all pressure symptoms disappeared. He was able to wear a No. 14½ collar with comfort. The treatment continued for several weeks. At the present time, nearly three years from the beginning of the trouble, the gland is scarcely perceptible.

# THE BROOKLYN PATHOLOGICAL SOCIETY.

FOUR HUNDRED AND FORTY-THIRD REGULAR  
MEETING, OCTOBER 8, 1903.

The President, J. C. MACEVITT, M.D., in the  
Chair.

HENRY G. WEBSTER, M.D., Editor.

## A CASE OF ILEOCECAL INTUSSUSCEPTION. SPECIMEN AND HISTORY.

DR. R. W. WESTBROOK: The history briefly is as follows: The case was brought into the Brooklyn Hospital after having been ill for a week, and apparently, as we gathered from the mother, the child had been seized with pain and had bloody stools, and was seen by the family physician, who treated it for diarrhea and dysentery. The pain and bloody stools continued, and finally there appeared at the anus a mass, which was supposed to be a prolapse of the anus on account of the large number of stools, which the child was constantly having.

On examination we found this mass hanging out of the anus, and recognized it as an intussusception. The child was about six months old. The mass looked as if it might slough but the static circulation remained very good. There was a discharge of feces from the anus, which encircled the mass, showing that adhesions had formed about, and a fistulous opening from the inner to the middle cylindrical intussusceptum allowed fecal matter to make its way down through the anus and around the mass of the intussusception, made up of the inner and middle cylinders. The outer cylinder of the intussusception was formed by the colon above as it had passed through the anus.

I simply removed the mass with the cautery with very little bleeding, and held the stump with hare lip pins, so that it might not retract too much and break up any adhesions present. The child lived for four weeks and died of gastro-enteritis.

The specimen is interesting as being a resection of an ileocecal intussusception. There may be identified the mucosa of the ileum and the openings into the small intestine and into the vermiform appendix. On cutting this tube the vermiform appendix is seen on the inside. A considerable portion of the ileum and colon was removed from this child, and yet the child lived on, and we thought would make a permanent recovery at one time, but most of them, I believe, die of gas-

tro-enteritis. Half of the cases of intussusception in childhood occur in babies from four to nine months old.

The case was wrongly diagnosed, as undoubtedly many of these cases are. Intussusception in very young children is much more common than is recognized. The anus contracted down thoroughly well and the child continued to have movements of the bowel apparently normally.

I might add that I think Treves records one or more cases where the entire colon has been removed and the patient has survived.

## Discussion.

DR. J. C. KENNEDY: I have never seen a case like that. Dr. Erdmann says he has never saved a child where he has had to resect. He advocated an early diagnosis and a very early operation. He has never saved a child, except where he has disentangled the bowels, and that can only be done very early. Dr. Erdmann has had a lot of cases. I have seen a few cases of intussusception, but they have always been too far gone to attempt operation.

DR. W. C. WOOD: I have seen several cases of intussusception. They are all dead but one. That case was relieved by ordinary mechanical means—that of water pressure. I have seen but two of these cases of intussusception that presented at the anus; both died, one rather promptly of general peritonitis, the other more slowly of gastro-enteritis. The cases of intussusception that we have opened and attempted to resect the gut have died promptly. Those cases where we have been able to separate the guts by mechanical pressure have in one or two instances given indications of probable success, but yet on the whole they have proven failures in the end. I think, as Dr. Kennedy says, that an early diagnosis, that is lacking so often in these cases, must be supplied before we get many cures.

DR. J. C. MACEVITT: What are your views as to reduction by gaseous expansion?

DR. W. C. WOOD: The only successful case of that kind I did was five years ago. The case was referred to me by Dr. Dunning of East New York. The child at that time was suffering from undoubted intussusception—bloody stools, diarrhea, etc., were present, with a history of 36 hours' duration. That intussusception was reduced by holding the child in a reverse position, head downward, feet in the air, and by the use of a douche applied for a longer time than probably is safe, 15 or 20 minutes. The subsequent treat-



ment of the case was by an opiate, which I believe is an important factor. If you are going to get a recovery you must not give a cathartic, otherwise these cases of intussusception will recur. That boy is still living, and it is the only case in my experience where I have had a complete and permanent recovery.

DR. H. B. DELATOUR: These cases are certainly exceedingly interesting and seem to be hard to diagnose by the family practitioner. I do not know why it is, but they do not seem to recognize the symptoms early.

I have seen quite a number of cases of intussusception. I had one case this spring presented to me for operation for hemorrhoids, in which the bowel was projecting and the ileocecal and the appendical openings were both visible at the anus. That hardly seems possible, but still there were competent men who had seen it and failed to diagnose the condition. Of course, the child's condition at that time was too poor for anything to be done in the way of an operation and it died six or eight hours afterward.

I had a case two years ago in a young child a little less than a year old, in whom after four hours of more or less continuous irrigation, the invagination was reduced, and the child made a good recovery.

As Dr. Wood has remarked, the after-care is as important as the operative procedure, and any effort at moving the bowel within a few hours is very likely to renew trouble. This child never had a recurrence of the bowel trouble, but this summer unfortunately it died very suddenly from getting a piece of bread in the larynx.

I saw a case of Dr. Ferris' in consultation several years ago. He had already made a diagnosis of intussusception, in which the diagnosis made by the first physician attending was of acute poisoning. The child was vomiting bilious matter. The physician had found that the child had been eating some cheap candy and the candy had more or less of a greenish color. He took it to be a case of poisoning, and in that case the typical symptoms were all present. The child was taken to the hospital and operated on and about twelve inches of the intestine was resected and an artificial anus made in the cecum. The intussusception recurred and the peristalsis was so great, that it tore the cecum away from the abdominal wound, causing leakage in the abdomen, the child dying of acute peritonitis.

I had a very interesting case in an old lady, which is hardly in the line of the case presented. It was a case I had operated on for acute intes-

tinal obstruction, simply making an artificial anus for relief, suspecting she had a new growth. Within six hours after the relief afforded by the artificial opening she began to have natural movements per rectum and they continued. Two years afterwards I was called to see her and she then had a projection through the artificial anus, which was easily recognized as the cecum, which was invaginated through the artificial anus, and then the ileocecal valve and the ileum through that. That was easily reduced, and she reduced it a number of times afterward herself.

Subsequently it recurred during the night; she was not able to reduce it herself, and I saw her about eight hours afterwards. Then the parts were so edematous that it was impossible to reduce the invagination. It was a very curious appearing tumor; the ileum was projecting away out beyond the cecum, which was itself everted. I did an abdominal section exposing the mass, resected the cecum, and transported the ileum into the site of the cecum, and she made an excellent recovery. At that time I thoroughly searched the abdominal cavity, and there was no sign of any tumor in the intestinal tract to have been the cause of the original obstruction. She died a year later of acute dysentery.

DR. J. P. MURPHY: About two years ago I was called one evening to see a boy about eleven years old, and I made a diagnosis of appendicitis. He had been taken sick that afternoon with acute diarrhea, but did not complain of very much pain and had only a little temperature. When the abdomen was opened through an incision for the appendix the intestines were all found collapsed, and I did not quite appreciate the condition. We divided several bands and got out the small intestines, and found throughout the small intestine about eight places where the bowel had become invaginated. The extent of each intussusceptum was about one-half inch, and the distances between these invaginations were about eight inches. These were reduced and the boy recovered and is well at the present time. The symptoms had existed about six hours.

DR. R. S. FOWLER: I have seen a similar case to that mentioned by Dr. Murphy. The patient was a five-year-old child with several invaginations in the small intestine, which were easily reduced at operation, in which a diagnosis of intestinal obstruction had been made. The trouble had occurred some two years previously, but no surgical treatment was necessary at that time. On the second occasion it was deemed necessary to operate, and the child is now well. The symp-

toms of the second attack were similar to the first, so I presume the condition had recurred.

Invagination of the ileum into the cecum and the traveling of the ileum along the colon into the the region of the anus I have seen three times. I have operated on three cases, and they have all proved fatal. I think all these cases do prove fatal.

DR. P. H. MOAK: I should like to ask Dr. Westbrook if he believes that this portion of the intestine represents the whole of the intussusception, or if there was not quite a portion of intussusception left there.

I might say in this matter of intussusception, that I have observed it five times in autopsies on young children dying of gastro-intestinal conditions, and where the intussusception had nothing to do with the death—simply came along either just before death or post mortem.

DR. R. W. WESTBROOK: I might add that my experience has been, that in older children intussusception is often diagnosed as appendicitis. I remember we had one case come into the Brooklyn Hospital, a woman of about thirty-five, who presented all the abdominal evidences of appendicitis. She was operated on and died a few days later, and we got no history of bloody stools. There was no continued vomiting in that case; there was sudden onset, pain in the right iliac fossa, tenderness, tumor in McBurney's point and rigidity of the right rectus muscle. It was a perfectly characteristic case of appendicitis. There we got no history of bloody stools, because we inquired carefully about that from the patient later.

In regard to Dr. Moak's question as to there being some of the intussusception remaining, I think without doubt there must have been considerable. I think probably the whole of that child's colon was invaginated. A good deal of the outer cylinder remained, but almost all the innermost cylinder (attached to it by adhesions) protruded.

DR. J. C. MACVITT: One very interesting point regarding the operation not touched upon was the removal of the growth by cautery. From an experience I had in such a case, it will probably be of interest to you to state that, in the amputation of the lower gut with the cautery, one should be cautious in the after treatment. I have seen and know of a case where absolute contraction and closure resulted, so it is well in cases of that kind where the reproductive process has advanced to a certain degree to use rectal bougies to prevent absolute contraction.

SOME PATHOLOGICAL SIMILARITIES BETWEEN APPENDICITIS AND CHOLECYSTITIS, DR. WALTER C. WOOD.

*Discussion.*

DR. R. W. WESTBROOK: I think this is an extremely important subject these days, and I have been much interested in hearing it as Dr. Wood has put it. He has mentioned a good many pathological similarities, yet in many ways they are not similar at all anatomically or pathologically, although I think clinically it is important to teach, especially the general practitioner, to think of appendicitis and cholecystitis very much in the same way.

One or two things mentioned I should not altogether agree with. Dr. Wood stated that sometimes the contents of the appendix were sterile. Practically they are never sterile. I cannot think of any condition in which that would be possible, except in the case of an occluded appendix, where there had been a mild infection, which had become closed in, and the infection gradually died out, very much as an infection in a pus tube will do, but practically that is a dangerous thing to ever look for. The contents of the gall-bladder are often sterile, usually sterile—but a gall-bladder infected with cholelithiasis always means infection. Of course, the contents there are not sterile.

I think that possibly Dr. Wood's paper may lead up to the question, which is now exciting a good deal of surgical division of opinion, as to whether cholecystectomy should be done, as we do with the appendix. I do not believe cholecystectomy ought to be done in the proportion of cases it is now being recommended. Roswell Park has recently written a paper, to the effect that the gall-bladder should be treated like the appendix, and says he has done it, but the conditions are entirely different. You have got a useless organ in both cases; the appendix is a vestigial structure; the gall-bladder is also, I think, a vestigial structure; it is very irregular in the different forms of mammals. In very closely allied mammals it may be present or absent and the human species gets along thoroughly well without the gall-bladder, so it is not an absolute necessity to the economy. It has some function as a reservoir for the bile, although it only holds a small quantity at any one time.

As regards the question of surgical removal, that does not have a great deal of bearing on the subject under discussion. I brought here a gall-bladder, which is somewhat overdilated



and looks like the ordinary gall-bladder containing twice the normal amount of fluid. This shows the position under the liver, a portion of the liver being removed, and this shows, too, the position of the gall-bladder, how poor the drainage into it is. It is practically uphill, going up into the cystic duct and then down in the main duct. This specimen is in bad shape. The pancreatic duct is also shown entering in the ampulla of Vater.

The blood supply is not always from a single artery, and in fact that is disputed as regards the appendix. The blood supply of the gall-bladder is much freer, and occasionally another artery from the hepatic supplies it. Then again it may distend tremendously, as Dr. Wood has said, reaching down to Poupart's ligament. On account of the free blood supply the gangrenous processes spoken of are extremely rare. I think one case is mentioned in Mayo Robson's work. Dr. Wood has seen more than one.

With the appendix gangrene is very common, and the presence of concretions is more important, I think, than Dr. Wood has mentioned, although his figures are very interesting as to the percentage of concretions present in normal appendices and normal gall-bladders, but the fact remains that, in nearly two-thirds of the appendices, where appendicitis or inflammation has been present concretions have been found, and the proportion of gall-stones present in cholelithiasis is extremely large. Cholecystitis with a foreign body is a practically rare thing. I think that William J. Mayo mentions some 26 cases out of perhaps 500.

There are some points where appendicitis and cholecystitis are very dissimilar, which also point out the proper surgical treatment. I believe that the gall-bladder should be drained and not removed in a very large proportion of cases for very ample reasons. We have an infection of the gall-bladder, and we have very often infection outside of it; therefore, the gall-bladder should be saved and used as a drainage tube. The fact that it is more or less of a vestigial structure, and not equal in resistance to most of the structures of the body makes it susceptible to disease, so that we should use it as a drainage tube.

As regards gall-stone colic, Dr. Wood spoke of the case of a young woman who had gall-stones with her first attack of colic. I do not know how much pain there is with typhoid cholecystitis—whether it resembles the pain of cholecystitis when gall-stones are present. I do not believe the pain of gall-stone colic is

due merely to the presence of infection in the gall-bladder. Of course, we find cases of cholecystitis with a good deal of tenderness and pain, where a single large gall-stone is present, but I do not believe these are cases where well-marked colic is present. I have seen cases where there were attacks of well-marked colic, just like the passage of a calculus down the ureter, but where a good many small stones were found. I think the pain is different where you only get a single large stone.

I think it is well to realize a good many points of clinical interest, which are similar between the gall-bladder and the appendix, because the treatment has got to be similar in many ways; that is, it is well to get at these cases where gall stones have made trouble and get at them between the attacks. Then the ultimate results are very good in every case.

I think another very interesting difference between appendicitis and gall-bladder disease is that appendicitis is a disease of young life, cholelithiasis a disease of late life, and the patients in cholelithiasis are not in as good shape as the cases of appendicitis.

DR. R. S. FOWLER: I think the subject has been presented, as far as it can be presented, well. I do not think there are many points of similarity between inflammations of the gall-bladder and the appendix. Like Dr. Westbrook I have been thinking on the line of cholelithiasis rather than acute inflammations.

In gall-bladder disease we have the gall-stones as a result of the inflammation. In appendical disease we have bacteria or an enterolith or a coprolith as a cause of the inflammation. We have an altogether different lining in the gall-bladder and the appendix; in one a lymphoid tissue like the tonsils, very subject to inflammation; in the other a mucous tissue, which has a special function of secreting a very glairy and viscid mucus, which has its function in uniting with the bile and keeping the cholesterol in solution normally. The one factor which is uncommon between inflammation of the appendix and gall-bladder, whether resulting in inflammations or acute or gangrenous cholecystitis, is the entrance of an infecting organism, and it is true that in most cases, both in the appendix and in the gall-bladder, that organism is the colon bacillus.

I have been thinking for the last week on this subject, and I have been trying to get all the similarities I could, but I could not work it out. I could not seem to make them tally. If we go into treatment there is something to be said, but from



a pathological standpoint there are not, to my mind, points in common beyond the exciting cause of micro-organisms.

DR. H. B. DELATOUR: I think the subject has been pretty well presented in all forms, so that now there is hardly anything left to be said. Dr. Westbrook's remark, that the question as to whether the appendix had more than one vessel supplying it was considerably in doubt at present, I think is open to debate. I have seen a good many appendices exposed and operated on, and I am satisfied in my own mind that the blood supply is usually, if not almost always from a single vessel. There may be in the meso-appendix more than one artery, but as you take the whole length of the appendix, when you come to the real base of supply, I think in a great majority of cases we will find there is but a single vessel and that there is no anastomosis.

In the gall-bladder we have a better chance for anastomosis to take place. We can have the same amount of inflammation in the rest of the intestinal tract that we have in the appendix without any trouble, because there is plenty of chance for anastomosis. I believe many cases of appendicitis are simply part of an acute enterocolitis, the appendix being involved merely as a part of the general inflammatory condition. We have gangrene taking place in the appendix because of the lack of blood supply and the interference with the return circulation.

In the gall-bladder I have failed to run across cases of gangrene as frequently as Dr. Wood would give one the impression they occur. I have seen cases when ulceration has taken place between the gall-bladder and the intestine, and it has seemed to me it was more an ulceration due to the presence of stone. In a case I have in mind there were three distinct openings between the colon and the gall-bladder. In that case I believe it was not a question of gangrene from an inflammatory condition, but a gangrene from pressure—the gall-bladder itself was a very small organ.

We must always remember, too, in dealing with gall-bladder cases, that the gall-bladder is not always the seat of the trouble—the common or the cystic duct is an important factor. Inflammatory conditions involving either the cystic or the common duct by a swelling of the mucous membrane, even with the presence of no stone, will cause an obstruction which will dam back into the gall-bladder the secretions, and infection spreading back through the ducts soon involves the contents of the gall-bladder, and the normally sterile contents become infected.

The point touched upon by Dr. Westbrook as to the removal of the gall-bladder, and the fact that people get along just as well without as with it is one that is worthy of attention. Personally I am not in favor of cholecystectomy in a majority of cases. I believe we have cases where it is eminently proper, but I believe our cases, as a rule, will do as well, if not better, and we run much less risk in draining than we do in removing the gall-bladder. If a stone exists in the gall-bladder in such a position that a stricture occurs within the gall-bladder itself, that is, a stone may be in the lower segment of the gall-bladder and the bladder contracted above it; in these cases we may have recurrence of the trouble if the stone is removed by further contracture of this cicatricial band. Equally common almost with the presence of gall-stones is the presence of inspissated bile, and these cases require prolonged drainage, in order to secure a permanent recovery.

DR. J. C. KENNEDY: In April of last year I reported two cases in the *New York Medical Journal*, one a case of cholelithiasis and another a case of appendicitis, and I reported these cases to show the difficulties we can experience in differential diagnosis. Dr. Wood has taken up the other side now to show the same.

One of these cases was in a lady who had gall-stones, had an empyema of the gall bladder with gall-stones, and the case was so like a case of appendicitis, that two or three who saw it were deceived. That gall-bladder, as Dr. Wood remarked, had come down low in the region of the appendix. She had, however, an acute inflammation of the gall-bladder from a calculus embedded in the cystic duct.

The other case was that of a man who had many attacks of biliary colic, and yet on one of these occasions his pain was so intense that his physician insisted on an operation being done. His appendix was drawn up in the region of the gall-bladder, and that was mistaken for a case of gall-bladder disease. His trouble was he had an enterolith crowded into the base of the appendix and distended that very much, causing a necrosis of the mucous membrane, as did the gall-stone necrosis of the mucous membrane of the cystic duct.

This shows the pathological condition in these two cases was identical, and I reported them as typical of many cases of that kind that I have met with. I think there is great similarity in the pathology of both conditions. They both have openings into the intestinal tract; they both often harbor foreign bodies, such as a stone, enterolith or concretion. I have met many of these cases

where I have been mistaken in the diagnosis, and that is the reason of my reporting these two cases I mention.

DR. R. CLARK: I have had an opportunity to examine many appendices removed by operation, and I think I must agree with Dr. Delatour, that the blood supply is from a terminal artery. If there is an anastomosis it is pretty hard work to find out where it comes from. I do not know that I have ever seen more than one artery supplying the appendix.

Dr. Wood mentioned the fact that the gall-bladder is sometimes found down almost to the crest of the ileum. That recalls a case I saw last summer. The patient was a woman, thirty-eight years old, married, three children, no history of any gall-bladder disease. She complained of a various train of symptoms, nervousness associated with dull pain in the right side low down. These symptoms had been developing for the past six to eight months. Six months before I saw her she said she felt as if something gave way on the right side, and later on, perhaps two or three days later, she said she felt a mass in the right side. Besides the nervousness and dull pain of the right side, she suffered somewhat from constipation.

Examination of the abdomen was rather unsatisfactory. The right rectus was rigid, there was a marked tenderness over McBurney's point and a tumor of the right iliac region. The patient had no temperature whatsoever. This led me to believe it was not an acute inflammatory process. Upon palpation the tumor moved slightly. It was moved from the right iliac region up to the median line midway between the ensiform and the umbilicus. The diagnosis rested between a gall-bladder lesion, floating kidney and malignant disease of the cecum. The region of the kidneys was palpated and percussed on the left side; there was less dulness than there should be. The dulness on the right side was more marked than on the left. A provisional diagnosis was made of floating kidney or pendulous gall-bladder. The patient was sent into the hospital, a median incision made, and it was found that the gall-bladder was a pendulous one, having only a cord-like connection between the normal position of the gall-bladder, and the lower end of the gall-bladder was distended. Within the gall-bladder was found inspissated bile.

When the patient was in the upright position the tumor could be grasped in the hand and felt like a kidney. What was thought to be the ureter

of the kidney was the pedunculated portion of the gall-bladder.

DR. W. C. WOOD: I should like to agree with all the gentlemen that there are many points of dissimilarity between inflammation of the gall-bladder and the appendix; in fact, it is only within the last two or three years that the points of similarity have been mentioned. On the other hand there are certain points of similarity, which we can not get away from. In the acute cases, in both instances, the symptoms are due to undrained infected cavities, while in the chronic cases the symptoms are primarily due to adhesions binding down both organs and the traction of these organs on intestine.

I believed too, with Dr. Westbrook, until a few years ago, that gangrene of the gall-bladder was a surgical curiosity, and I believed that the gall-bladder would not puncture. I saw a case of acute cholecystitis in a patient of Dr. Kuhn's at St. Mary's. The woman was stout and rather an unfavorable case for operation, so I suggested we put on some ice and the inflammation would take care of itself. She did not get well, and we opened the abdomen a week after, and practically the whole of the gall-bladder was gangrenous. I believed then that it was an exceptional case.

Later I saw a case of Dr. Gordon's, which had been treated for a month before operation was advised, and by a gentleman who believed, as I did, that gangrene of the gall-bladder was unknown, until that case developed a perforation of the gall-bladder—a localized perforation near the cystic duct. She had in a localized abscess in that region a dozen or more stones with a septic gangrenous process of the gall-bladder.

I was not quite convinced that gangrene of the gall-bladder was anything but exceptional until last summer I opened one of these cases with an acute inflammation, and found a gangrene of the mucous lining. I followed the advice of Robson, and removed the mucous membrane, leaving the wall of the gall-bladder for a drainage tube. While I do not wish to suggest that gangrene of the gall-bladder is comparable in frequency with gangrene of the appendix, yet I believe it does occur very much more often than we give it credit for.

One operating frequently for chronic appendicitis, occasionally finds a cystic condition of the appendix, the contents of which are sterile. Hydrops of the gall-bladder is more common; the infective conditions being similar in both instances.

# THE BROOKLYN GYNECOLOGICAL SOCIETY.

STATED MEETING, NOVEMBER 6, 1903.

The second Vice-President, J. O. POLAK, M.D., in the Chair.

HENRY C. KEENAN, M.D., Editor.

REPORT OF CASE: OXYURIA FOUND IN THE ULCERATED MUCOUS MEMBRANE OF A VERMIFORM APPENDIX.

DR. J. R. TAYLOR: I should like to show a rather interesting specimen of an appendix, which I removed last June from a child about ten years of age. The child had a history of two previous attacks of pain in the right groin, and the attack in which I saw it was terminating apparently favorably. The physician in attendance told me the temperature had subsided two days previously to my seeing the case, and my only reason for insisting upon an operation at the time I saw the child was the continued rigidity of the right rectus muscle.

The peculiarity of the specimen consists in the fact, that it contains three spots of ulceration—gangrenous spots—and that in each of these spots there was packed a number of oxyuria. The presence of parasites in the appendix seems to be a rather rare condition. In the July number of the BROOKLYN MEDICAL JOURNAL, Dr. Fowler mentions a report from Paris in 1902 in a review of medicine and surgery, of a case in which fifteen oxyuria were found in a patient 24 years of age, in whom the abdomen was opened for the purpose of removing a cystic right ovary, and the appendix in that patient (apparently normal) was split open and found to contain fifteen thread-worms. In the November, 1903, number of the BROOKLYN MEDICAL JOURNAL, Fowler reports two or three cases in which animal parasites were found in the appendix.

In this case there are fifty-seven thread-worms in the appendix.

## Discussion.

DR. JEWETT: Some time ago I reported at one of our meetings a case of obstruction of the bowel by impaction of lumbricoid worms in the ileum at the ileocecal junction. The diagnosis was appendicitis, and appendicitis was found. The appendix was empty. May I ask the Doctor if the thread-worms were the cause of the appendiceal lesion?

DR. J. R. TAYLOR: Owing to the fact that I

found them packed in these gangrenous spots and held there firmly by the fecal matter present, I should say they must have been the cause. The worms were not scattered throughout the appendix, but were matted together in these gangrenous spots. I do not know of any other cause in this case which would produce a series of multiple gangrenous spots in that way. I think their presence there undoubtedly was the cause of it.

DR. BRISTOW, I believe, reported to the Pathological Society some eight or ten years ago a case in which there was an appendicitis with a perforation through the appendix, and in which a round worm had gone through and was found free in the abdominal cavity, or partially in the appendix and exterior to it.

DR. J. W. HYDE: I am tempted to ask the question as the subject of the appendix is under discussion, what is the normal length of the appendix, and I am induced to ask the question because in a case I operated on during the past week, I removed an appendix  $5\frac{1}{2}$  inches long; it was fully as large around as an ordinary lead pencil, and it seemed to be altogether abnormal. There was a sort of bulb on the end of it.

At a meeting of the Woman's Hospital Society two or three years ago, Dr. Clement Cleveland stated a case that he had, where the appendix was about 6 inches long. They looked upon it as a curiosity, and he had thought such a condition was hardly possible—the distal end of the appendix was found away over on the left side. After he sat down Dr. Paul Munde stated he had had one 7 inches long.

DR. J. O. POLAK: I should like to ask whether the gentlemen of the Society have changed their opinion about removing every appendix in an abdominal section or not. I was very heartily criticized in the suggestion that it was a good plan to remove the appendix in every case of abdominal section when I read a paper here last year.

DR. J. R. TAYLOR: In regard to Dr. Hyde's question, I would say that two years ago at the Williamsburgh Hospital I removed an appendix from a girl four or five months pregnant, which measured 8 inches. I saw Deaver remove an appendix from a stout German girl which measured 10 inches.

DR. FOWLER tells me he has removed one that measured about 9 inches. So far as the normal length of the appendix is concerned, I do not think there is any normal length.

In answer to Dr. Polak's question, I believe it is *always* right to remove the appendix in all cases of abdominal section.



## REPORT OF CASE: INTRAMURAL UTERINE ABSCESS.

DR. J. C. MACEVITT: The history of the case I have to report is as follows:

Patient 27 years of age, married; menstruation normal; has had five children, last birth two years ago, premature, at the seventh month, since which time she has had three miscarriages, last one eight months ago. Dating her present illness from this period, she states that she has had intermittent agonizing pain in the left ovarian region until six weeks ago, when the pain would occasionally shift to right side, back and down the thighs, yet the left ovarian region would remain sensitive to pressure at all times. This condition was accompanied by headache, anorexia, constipation, loss of strength and flesh.

A vaginal and bimanual examination revealed a hard and fixed mass extending from the right side of and across the posterior pelvis. There was nothing abnormal on the left side, where the greatest pain existed.

*Operation.*—After peritoneal cavity was opened right tube and ovary were found diseased with intimate adhesions to a sloughing appendix. When these adhesions were broken up there was considerable oozing, which was controlled. The right tube and ovary and appendix were excised.

As I was about to close the abdominal opening I noticed active bleeding from the fundus of the uterus where the volsellum forceps used to lift it upward had left a ragged wound. To control this I placed a catgut purse-string suture around the base of the tear. To my surprise pus exuded through the needle's puncture at two points. Here was a condition fraught with danger to the patient and difficulty to the operator. The operation up to this point had been a prolonged one, the patient's condition far from good, and it meant a hysterectomy; in fact, doing my work over again.

I did not feel justified in returning the patient to her bed with a pus-saturated uterus, and I had grave doubts as to whether or not she would stand further prolonged surgical interference. However, I decided to attempt its removal, but before tying off the uterine arteries I made a clean cut through the posterior wall of the fundus and opened into a localized pus cavity, a condition I had never before met with, nor have I found any reported case in looking through the literature, except where there was a complete uterine infection.

I curetted the cavity, and having thoroughly swabbed it out with peroxide of hydrogen, closed

it with two layers of sutures. The patient made an uneventful recovery, and was discharged from the hospital three weeks after the operation.

The chief point of interest is this: that this cavity was on the right side, while the right tube was enlarged; but there was no pus in the tube. One would naturally suppose that with a condition of this kind he would have pyometra, or an extension of pus into the cornu from the original pus tube, and that the tubal opening and the uterine opening had been closed and rendered impervious along with this collection of pus, but it was not so. It was in the uterine tissue, and when the pus was cleaned out it left a cavity with no connection with the tubal opening or the uterine opening.

*Discussion.*

DR. JEWETT: There is no question that abscesses may occur in the walls of the uterus, as well as in other structures. I have seen several cases. The puerperal uterus is sometimes removed because of pus collections in its walls. Some days ago a patient who had just left the Long Island College Hospital had, during convalescence from a plastic operation, a sudden discharge of pus per vaginam which I referred to a ruptured uterine abscess.

DR. S. J. McNAMARA: I would like to ask whether this abscess in the uterine wall has the same etiology as the infectious disease in the tube, or whether it was due to later infection from the tube? I would like to ask Dr. MacEvitt if the ovary was the seat of an abscess?

DR. F. J. SHOOP: It occurred to me also because of the fact that the site of the abscess cavity was smooth and not connected with the uterine cavity or tube, that it might have been an encapsulated fibroid in the uterus that had broken down and undergone suppuration.

DR. J. C. MACEVITT: I can scarcely conceive the condition as being produced by a breaking down of a fibroid, for the pus was thick, clear and creamy. In the breaking down of a fibroid you would find grumous material with detritus, which was not so in this case. The case was certainly infected and there must at one time have been a general infection.

DR. CHAS. JEWETT reported a case of

## LARGE DERMOID CYST OF THE OVARY.

The patient was an unmarried woman, 24 years of age. The abdomen had been growing steadily for several years, and at the time the patient

came under my observation was of about the size of a nine months' gestation. The growth had been attended with no pain nor with inconvenience enough to interrupt her daily duties as a typewriter. The diagnosis of ovarian cyst was made and its removal advised. The patient for a time demurred, for the reason that the condition had caused no symptoms. At operation in June last at the Long Island College Hospital the tumor was found to be a dermoid cyst. Fearing that some leakage had taken place into the peritoneum during operation, examination of two smears prepared from the cyst contents was made by Dr. Fincke. The material was found to be sterile. The abdomen was closed, and the patient maintained a normal temperature throughout the convalescence. The case is of interest only because of the unusual size of the dermoid.

Some years ago I operated in case of a similar but still larger dermoid.

DR. CHAS. JEWETT reported a case of

#### MULTIPLE UTERINE FIBROMA COMPLICATED WITH HEMATOMETRA.

The patient was a single woman, 41 years of age. Fibroma uteri had been recognized several years before. A general surgeon whom she had consulted had declined to operate owing to cardiac weakness. The woman had been under my observation for about a year. The diagnosis was multiple myoma of the uterus. For several weeks before operation the woman had been incapacitated by reason of pelvic pain. On examination the uterine tumor was found about the size of a coconut, considerably larger than at the preceding examination six months before. Strychnine and digitalis were administered for one week. Hysterectomy was performed September 16, at the Bushwick Central Hospital. The pulse at the close of the operation was 80 and of good volume. The uterus contained 6 ounces or more of old blood. The cervical canal had become partially occluded by pressure from one of the growths at the isthmus. The hematometra had evidently been the cause of the recent growth of the tumor and of the pain. Recovery was uninterrupted except by moderate suppuration about the upper end of the cervical stump, which was promptly relieved by dilating the cervical canal. Infection had occurred from the old blood in the uterus. Theoretically we might expect infection to follow more frequently than it does after supra-vaginal amputation. Yet statistics do not show any material difference be-

tween the results in supravaginal amputation and complete hysterectomy.

DR. J. O. POLAK: Have you noticed it makes any difference in the height or point of amputation, whether above or below the internal os, as far as infection is concerned?

DR. JEWETT: The body of the uterus is generally found free from bacterial organisms, while the cervix is not so. The danger of infection would doubtless be greater as a rule in amputating below the os internum than above it.

I do not cauterize the canal. I have done so, with carbolic acid, but nothing is gained by it.

DR. J. O. POLAK: How do you treat the stump in a supravaginal hysterectomy?

DR. JEWETT: By suturing the musculature and then closing the peritoneum over it.

DR. H. C. KEENAN: I would like to ask what the practice of the gentlemen present is as to removal of the uterus when both tubes and ovaries are excised, and when the uterus is left whether it is their custom to stitch it up to the abdominal wall.

DR. L. G. BALDWIN: I read a paper before this Society eight or ten years ago, in which I stated I had removed both tubes and ovaries and did not take the uterus out, and reported a large number of cases a considerable time afterwards as being in a perfectly satisfactory condition of health, and took the ground then that I would not remove the healthy uterus because I removed the appendages. I have never done it and do not believe I shall ever change my mind.

DR. J. C. MACVITT: The point of election is this: If you are certain you have a normal uterus, it is better to let it remain, but where you determine in advance that you will remove the tubes and ovaries, it is of paramount importance to know that you have a healthy endometrium, and that can only be determined by a microscopical examination of the scrapings. The object, of course, in removing the uterus, is to prevent any disease developing in it requiring secondary operation. I do not do a pan-hysterectomy, as a rule, but leave the cervix *in situ*.

Stitching the uterus to the abdominal wall depends entirely upon the size of the uterus. If you remove the tubes and ovaries and broad ligament and leave an enlarged uterus, it is almost certain to fall back and become retroverted and produce the symptoms that go with retroverted uterus. The operation of suspension is so very trifling, that I believe it to be good surgery to stitch an enlarged uterus to the peritoneum in the majority of these cases.

DR. S. J. McNAMARA: I have not taken out the uterus where it could possibly be left. In most conditions I fix it to the abdominal wall, especially if the posterior surface or peritoneum has been abraded.

As to danger of infection from the tubal end of the uterus, I have not much fear. Personally my experience with pus in pus tubes is this infection seldom gives rise to any trouble. Certainly, it seems to me we would have lost most of our pus tube cases instead of saving them, if the pus was virile.

DR. C. R. HYDE: I believe that one can with safety leave the uterus in the majority of these cases. Usually it is a point of personal election on the part of the operator. If the cornua are excised, as should always be done in pyosalpinx, there is, I believe, no danger. Besides, in leaving the uterus *in situ*, the vaginal vault is preserved and there is no shortening of the vagina. Suspension of the uterus may or may not be performed, according to the indications. Personally, I prefer shortening of the round ligaments by the intra-abdominal method.

DR. JEWETT: I would refer the Doctor to the discussion at the last meeting of the American Gynecological Society. Many of the speakers were in favor of removing the uterus.

A recent paper by Frederick, of Baltimore, takes the opposite view. He would retain the uterus when possible. That has been my practise, and I have never seen reason to regret it. If the uterus is curetted, the intramural portion of the tube excised and there is no obvious disease of the uterus, it should not be sacrificed. The normal relation of rectum and bladder is preserved, and atrophy of the vagina is not so marked. When the uterus is damaged and there are large raw surfaces, I have taken it out rather than leave so much raw surface for new adhesions.

As to the necessity of stitching the fundus forward, that may be done, or the round ligaments may be shortened, but I do not believe much harm will come if it falls backward.

Bovée in removing the tube leaves as much of the broad ligament as possible. That strikes me as a good point in the technic, and I have followed it frequently. Raise the tube and ovary, remove the diseased structures, leaving the greater portion of the broad ligament intact and turn in the edges of the peritoneum.

DR. J. W. HYDE: It seems if both ovaries are removed that the menopause is brought about, and the same condition will govern then that

would govern in any normal case of menopause, the uterus would gradually atrophy and possibly to a certain degree would be retroverted. I have not followed the plan of removing the uterus simply because I removed the tubes and ovaries, and very rarely have attached the uterus to the abdominal wall.

The Eighty-sixth Regular Monthly Meeting of the Brooklyn Medical Society was held on the evening of Friday, October 16, 1903.

The President, Dr. A. T. Bristow, in the chair.

Owing to the absence of Dr. H. E. Rogers, the Recording Secretary, Dr. Alfred Bell, acted as Secretary *pro tem*.

Reading of the minutes of previous meeting was deferred until the following meeting.

Applications for membership: Dr. James F. Dougherty, 253 Marcy avenue, Bellevue, '96.

The resignation of Dr. J. M. Winfield was read and accepted with regret.

A communication was received from the Charity Organization Society of New York City stating that they had not received the Society's annual report. The Secretary was instructed to send the annual report to that organization.

Clinical Section: Dr. R. W. Westbrook, chairman.

1. DR. WESTBROOK: (a) Specimen of a Fibroid of the Uterus. (b) Case of Chronic Intestinal Obstruction. In the case of obstruction he said that it had extended over two years; that the acute trouble had lasted over two months, and that operation showed it to be an annular carcinoma of the splenic flexure.

2. DR. JOHN O. POLAK: (a) Interesting Case of Rupture of the Left Kidney as the Result of a Fall. (b) Case of Hydronephrosis of the Right Kidney.

#### PROGRAM.

"Normal Involution of the Appendix," Dr. R. T. Morris, of Manhattan.

Discussion by Dr. J. M. Van Cott, Dr. J. P. Warbasse, Dr. J. D. Sullivan, Dr. R. S. Fowler, Dr. Sidney H. Gardener. On motion, which was duly made, seconded and carried, a vote of thanks was extended to Dr. Morris for his excellent paper.

Adjournment and social session.

HUGH EDWARD ROGERS, M. D.,

Recording Secretary.



**SUFFOLK COUNTY MEDICAL SOCIETY.**

REGULAR SEMI-ANNUAL MEETING, OCTOBER 29, 1903.

Meeting called to order by the President, Dr. A. C. LOPER. Dr. R. W. FOWLER was elected acting Secretary.

Twenty-seven members were present, the largest number in the history of the Society.

The following were elected to membership: Dr. Wm. C. Weeks, Babylon; Dr. M. B. Davis, Patchogue; Dr. G. L. Hunter, Sag Harbor; Dr. M. J. Thornton, Central Islip; Dr. C. B. West, Central Islip.

Dr. Davis read an interesting paper on Tetanus, which was discussed by Drs. Moore, Hulse, B. D. Skinner and E. D. Skinner.

**AFTERNOON SESSION.**

Treatment of Insane by Hydrotherapy was demonstrated by Dr. Frank Hinkly of M. S. Hospital, Central Islip.

Paper on Dementia Præcox was read by Dr. R. W. Fowler, and four patients suffering with the disease were presented.

Dr. C. G. Brink presented several cases of paranoia.

The Society thanked the Superintendent and Staff of the Manhattan State Hospital for his entertainment of the Society.

Dr. Smith invited the Society to meet at the State Hospital next October, and the invitation was accepted.

Dr. M. B. Heyman read a paper on Paresis, and demonstrated several cases.

P. VAN BENSCHOTEN FOWLER,  
Secretary.

**THE MEDICAL SOCIETY OF THE COUNTY OF KINGS.**

STATED MEETING, DECEMBER 15, 1903.

The President, C. N. COX, M.D., in the Chair.

There were about 150 members present.

The meeting was called to order, and the minutes of the previous meeting read and approved.

**REPORT OF COUNCIL.**

The following candidates for membership have been accepted by the Council:

F. C. Eastman, L. I. C. H., 1899.

V. J. Gallagher, N. Y. Univ., 1892.

**APPLICATIONS FOR MEMBERSHIP.**

Applications for membership were received from the following:

Claude G. Crane, 41 Halsey Street, P. & S., N. Y., 1900. Proposed by G. L. Buist; seconded by W. C. Wood.

Patrick J. Murray, 815 Willoughby Avenue, Bellevue, 1895. Proposed by C. B. Bacon; seconded by W. S. Hubbard.

Norman E. Farewell, 522 Forty-ninth Street, Trinity Med., Toronto, 1897. Proposed by N. L. North, Jr.; seconded by W. S. Hubbard.

**ELECTION OF MEMBERS.**

The following having been duly proposed and accepted by the Council were declared, by the President, elected to active membership:

Donald S. McNaughton, L. I. C. H., 1903.

A. D. Smith, P. & S., N. Y., 1902.

H. W. Post, Univ. of Vermont, 1876.

D. R. Lloyd, Univ. & Bell., 1901.

F. L. Cochrane, P. & S., N. Y., 1900.

Jacobus Loewe, L. I. C. H., 1897.

Henry D. White, P. & S., N. Y., 1887.

**SCIENTIFIC PROGRAM.**

1. Paper: *The Mortality of Appendicitis*. By Prof. FREDERICK S. DENNIS, M.D., Manhattan.

2. *The Report of the Historical Committee*. By JAMES P. WARBASSE, M.D., Chairman.

**EXECUTIVE SESSION.**

The following nominations for officers, trustees and censors of the Society and delegates to the Medical Society of the State of New York, were made and duly seconded:

For President: John E. Sheppard.

For Vice President: Calvin F. Barber, James W. Fleming, John C. MacEvitt.

For Secretary: James C. Hancock, William S. Hubbard.

For Associate Secretary: William C. Woolsey, Sylvester J. McNamara.

For Treasurer: Onslow A. Gordon, Charles H. Tag.

For Associate Treasurer: Lefferts A. McClelland, John R. Stivers.

For Directing Librarian: James M. Winfield, Charles D. Napier.

For Five Censors: R. M. Elliott, H. G. Webster, John Harrigan, J. P. Warbasse, R. J. Morrison, H. Arrowsmith, E. H. Mayne, W. F. Campbell, W. F. Dudley, W. C. Wood.

For One Trustee: C. N. Cox, G. McNaughton.

For Thirty-eight Delegates to the State Society: L. G. Baldwin, G. L. Buist, J. J. Collins, F. B. Cross, G. E. Deely, C. Duncan, C. L. Fincke, J. T. Gallagher, N. P. Geis, C. P. Gildersleeve, D. Holt, W. S. Hubbard, O. P. Humpstone, J. E. Jennings, H. C. Keenan, E. A. Lack, H. W. Lincoln, C. R. Love, W. H. Maddren, L. McClelland, C. McCoy, P. H. Moak, E. J. Morris, J. P. Murphy, H. W. Nichols, E. A. Parker, W. V. Pascual, P. M. Pilcher, P. F. Pyburn, R. S. Royce, C. E. Scofield, A. E. Shipley, T. B. Spence, C. W. Stickle, J. J. Wagner, R. T. Wheeler, W. C. Woolsley, Palmer Townsend.

A motion was made that the thanks of the Society be tendered to Dr. J. M. Winfield, directing librarian, for his zeal and untiring efforts on behalf of the library for the past three years. Seconded and carried.

Dr. Herman G. Klotz, 42 East Twenty-second St., Manhattan, was elected an honorary member of the Society.

A motion was made by Dr. G. R. Fowler, and duly seconded, that the thanks of the Society be conveyed to Dr. Dennis for his courtesy in reading a paper during the evening. Carried.

Adjourned.

WM. C. HUBBARD,  
*Secretary.*

#### NO COUNTY SOCIETY OF THE STATE TO LOSE ITS AUTONOMY.

19 East Forty-seventh St., NEW YORK CITY.

November 12, 1903.

DR. CHARLES JEWETT, *Chairman Trustees Medical Society, County of Kings.*

DEAR SIR.—In the forthcoming State organization no County Society will lose its autonomy. The charter of the Medical Society has, and will have, nothing to do with the County Societies except for the purpose, where they do not exist, to form them. The autonomy of the County Society will be greater than ever, inasmuch as every member will have the same rights and privileges which formerly were enjoyed by delegates and permanent members. Even the annual dues, beyond what the State Society has a right to receive, will be assessed by each individual County Society. Your library is yours, in the same way as an individual library is personal property; the State Society should not be suspected of wishing to interfere with a property accumulated by your self-imposed taxes and the generous voluntary

contributions of so many amongst you. The Committee of Ten should not be suspected of wishing to commit acts of downright robbery. Very truly yours,

A. JACOBI,  
*Chairman Joint Committee of Ten.*

We cannot refrain from a word of comment on the matters referred to in Dr. Jacobi's letter which has been received by the Editor just as this issue is going to press, and which, at the request of Dr. Jewett, Chairman of the Board of Trustees, we publish. Personally, we are unable to conceive that any one has believed the committee either capable of robbery or disposed to appropriate the property of the Medical Society of the County of Kings. We shall certainly continue to stand convinced of the fact that the Library is the property of the members of the County Society, who subscribed for its installation and who now contribute to its support. In justice to the Society, it behooves us to say that we have not met with a member who is not rejoicing in the prospect of an early unification of State organization.

Our regard for the welfare of the State organization is sincere; yet as the official organ of the County Society the JOURNAL deems it proper to state that it regards of primary concern the welfare of the County Society and the profession of the borough of Brooklyn.

A fair consideration of the questions involved in this important matter should appeal to every one as necessary to their proper solution.—Ed.

**Index Medicus.**—This valuable publication has now some 450 subscribers—a meager list and unfortunately a commentary on bibliographical scholarship. We learn that there is every reason to believe that, if 500 bona fide subscribers can be secured, that the Carnegie Institute will continue its appropriation and make the *Index* a permanent affair. American physicians should not rest under the imputation that there are only 500 of its 120,000 practitioners who are up and alive to the interests that the *Index Medicus* represents. There should be thousands of active, wide-awake men in this country ready to support the *Index*. American physicians are proud of their institutions. Surely the extent of this is not measured by a paltry \$5.

**Changes in the Cornell University Medical College.**—Dr. Alexander, Professor of Genito-urinary Diseases, has obtained a leave of absence on account of illness, and this year the lectures upon the surgery of the genito-urinary tract will be given by Dr. Charles L. Gibson.

**Resignation of Dr. Goelet.**—Dr. Augustin H. Goelet has resigned the Chair of Gynecological Electro-therapeutics in the International Correspondence Schools of Scranton, Pa., to take effect Jan. 1, 1904.



## Brooklyn Medical Journal.

All communications, books for review, articles for publication, and exchanges should be addressed **BROOKLYN MEDICAL JOURNAL**, Library of the Medical Society of the County of Kings, 1313 Bedford Avenue, Borough of Brooklyn, New York.

Authors desiring Reprints of their papers should state on the galley proof the number of Reprints desired.

Each contributor of an Original Article will receive five copies of the JOURNAL containing his article, on application at the Library of the Society, 1313 Bedford Avenue.

A limited number of black and white drawings to illustrate papers will be reproduced by the JOURNAL free of charge. Electrotypes will be furnished at cost.

Alterations of the proof will be charged to authors at the rate of sixty cents an hour, this being the printers' charge to the JOURNAL.

*Entered at Brooklyn, N. Y., post office as second-class matter.*

BROOKLYN-NEW YORK, JANUARY, 1904.

### ANNUAL LECTURE OF THE MEDICAL CLUB OF BROOKLYN.

THROUGH the Medical Club of Brooklyn the profession of this city recently had the opportunity of listening to an address on "Diarrhea in Infants, with Special Reference to Ileocolitis," by Dr. Thomas Morgan Rotch of Boston. This address constitutes this year's annual lecture given by the club to the profession, that of last year having been given by Dr. Charles Wardell Stiles of the United States Hospital Marine Service, on "Hook-worm Disease," published in condensed form in the February, 1903, number of the **BROOKLYN MEDICAL JOURNAL**.

The warm reception which these lectures have received from the large audiences of medical men who have had the pleasure of hearing them, is probably sufficient encouragement for those who are responsible for their presentation to continue the admirable custom.

### TYPHOID FEVER EPIDEMICS.

ANOTHER American town is attracting an undue amount of attention by reason of the visitation of a particularly virulent epidemic of typhoid fever. Large sums are now being expended in the suppression of this epidemic, and, it is assumed, in installing permanent improvements in its sanitary conditions and its water supply.

It is not improbable that other epidemics will appear in the United States in the not distant future. Water supplies unguarded from pollution only await a sufficiently virulent contamination to distribute disease. In towns where typhoid occurs now only in its endemic and comparatively mild form, from defective sanitation, epidemics may occur at almost any time. Ultimately, sanitary water plants are installed in the community which has so suffered.

There are towns and cities in our land where unpolluted water supplies are furnished by their

respective municipalities with no other motive than a sense of duty. It is a cause for congratulation that so many communities are wise enough to forestall epidemics, and so escape the unpleasant notoriety as well as the great financial loss which such epidemics entail.

The causes of typhoid epidemics are no longer clouded in mystery. Cause and effect are perfectly clear. Nor is there longer excuse for the ignorance which permits them. Books may be had in abundance, understandable by laymen as well as physicians, which elucidate the science of sanitation and pure water supply. The difficulty of obtaining the latter varies with the locality, and engineering problems must often be solved in order to obtain it. Sanitary engineering has, however, been able to meet successfully all the obstacles presented. The cost is sometimes considerable, but neglect of sanitary precautions must be classed in the category of short-sighted economies.

### STATISTICS OF MORTALITY COMPILED BY THE UNITED STATES CENSUS BUREAU.

THE Bureau of the Census of the United States has recently issued a bulletin termed "Statistical Treatment of Causes of Death." Some of the difficulties which compilers of mortality statistics meet with are detailed in a brochure issued a few months since by this department of the government, and sent to physicians throughout the country. The loose and inaccurate use of medical terms, which prevails in some portions of our country, presents obstacles to accurate classification which can hardly be overcome.

The bulletin lately issued asks for aid in determining the comparative importance, as causes of death, of the disease and titles given, where two or more causes of a death are returned. A rating by numerals to express the comparative value and accuracy of terms used to denote causes of mortality has been suggested, and the assistance of physicians, pathologists, clinicians, and vital statisticians is requested in determining the diseases which should have the highest rating. Among the most useful applications of sound medical nomenclature is its utility in indexing and in compiling. A reading of the bulletin, which is obtainable on application, is recommended. What statisticians need in a death certificate is to have, clearly stated, the one, overwhelming cause in each death, together with contributory causes. Effort should be made to furnish this information in each certificate of death.



## OBITUARY.

## CHARLES A. H. DE SZIGETHY.

Dr. de Szigethy was born in Hungary on December 21, 1838, and died in the city of Brooklyn on November 17, 1903. His education was received at schools in Vienna, Berlin, Budapest, Zurich and Pavia. His medical education was conducted at the University of Giessen, Germany, where he was graduated M.D. in 1867, the following year receiving the degree of M.D. from the University of Pesth, Hungary. He then visited the hospitals of Paris and London, and during the same year came to America. He began the practise of medicine in the city of Troy, N. Y., and for a short time in New York City in 1869. He located in Brooklyn, where he remained until 1883. From this date until 1894 he was in practise at Los Angeles, Cal., returning in the latter year to this city, where he remained until his death.

His father was Stephen de Szigethy, and his mother Baroness Helen Von Stein, both of Hungary. The Doctor married Miss Mary Stevens Mackenzie in June, 1869, daughter of Colonel William Mackenzie of Brooklyn.

Dr. de Szigethy was physician to the Dispensary of the Long Island College Hospital from 1878 to 1880; a member of the Medical Society County of Kings from 1869; of the Brooklyn Pathological Society of the New York Physicians' Mutual Aid Association, American Medical Association, New York Medical Journal Association, the Kings County and New York State medical associations, and during his stay in California he was a member of the Los Angeles Medical Society and California State Medical Association.

During the years 1885-86 he was professor of materia medica in the Medical College of the University of Southern California.

His only medical paper, one on "Kumys," was read before the Society in 1879.

From 1875 to 1882 he was a member of the Long Island Historical Society, a member of Anglo-Saxon Lodge, No. 137, F.A.M., and of Constellation Chapter, No. 209, R.A.M., and a member of the Masonic Veterans' Association of Brooklyn.

WILLIAM SCHROEDER, M.D.,

Secretary of Hist. Com.

**Reappointment of Dr. Reynolds.**—Commissioner of Health Arthur R. Reynolds, of Chicago, was reappointed by Mayor Harrison on Dec. 14, and his appointment confirmed by the City Council.

## MEDICAL NEWS.

EDITED BY CLARENCE REGINALD HYDE, M.D.

*It is earnestly hoped that all members of the profession possessing news concerning themselves or their friends which would interest others will communicate the same to the News Editor before the 9th of each month. Items for this department should be sent promptly to Clarence Reginald Hyde, M.D., 126 Joralemon Street.*

Dr. F. Burton Otis announces the removal of his office to 369 Hancock Street.

Dr. G. C. Straub announces the removal of his office from 385 Franklin Avenue to 1122 Hancock Street after January 1, 1904.

Two well-known Brooklyn physicians died in November, Dr. C. H. de Szigethy of 157 Clinton Street, and Dr. Samuel Talmage of 22 Schermerhorn Street. The latter was a prominent homeopathist.

James King Eracie (the uncle of President Roosevelt), who recently died, willed \$5,000 to the Orthopedic Dispensary and Hospital in Manhattan, and also \$25,000 to the same institution for a general endowment fund.

The remains of Capt. Franklin M. Kemp, Assistant Surgeon, U. S. A. (L. I. C. H., '93), arrived at this port November 20th. Dr. Kemp died suddenly of heart disease at Nueva Caceres, P. I., February 23, 1903, during a military parade of the garrison. The remains were shipped to Washington, D. C., where, on November 25th, they were interred with military honors in Arlington Cemetery.

The Long Island Medical Society has elected the following officers: President, Edward S. Hodges; vice-president, William Austin Tomes; secretary, W. Carl Schoenijahn; treasurer, Edward E. Cornwall; editor, James Watt; trustees, for three years, Lefferts A. McClelland in place of Heber N. Hoople, whose term expires; Sylvester J. McNamara and Arthur C. Jacobson. Mr. Evarts Prentiss, counsel to the Society, and Dr. Arthur C. Brush (resigned) were elected honorary members.

On Tuesday evening, November 24th, the Alumni Society of St. John's Hospital met in the County Medical Building for the first scientific session of the year. Dr. H. A. Fairbairn read a paper on "Some Physiological and Pathological Points Regarding the Liver," which was discussed by Dr. Archibald Murray and the members in general. Dr. H. T. Hotchkiss then read a pa-

per entitled "A Plea for More Method in the Practise of Medicine," followed by a general discussion. Dr. W. S. Hubbard reported an interesting case of typhoid fever, unique in the lack of any clinical symptoms until very late in the disease and the long persisting coma and emaciation, with a final complete recovery. Dr. W. L. Duffield reported an obscure case of gastric ulcer, and Dr. Edward Hodges one of multiple fibromyoma of uterus which is steadily improving under X-ray treatment, presumed to be the second on record. Members present, Drs. Royce, Duffield, Fairbairn, White, Simmons, Murray, Hubbard, Hotchkiss, Hodges, Knight, Lewis, Search, Gilmour and Longstreet. The president, Dr. R. S. Royce, in the chair.

Mr. Arthur Kelly, of 178 Baltic Street, and a senior student in the Long Island College Hospital, died recently from appendicitis. He was a very popular fellow among his classmates, and enjoyed a reputation of being an excellent football player. Appropriate resolutions were adopted by his classmates in memoriam.

Dr. Cyrus Edson, who was Health Commissioner under Mayor Gilroy, died recently in Roosevelt Hospital of pneumonia. Dr. Edson was born in 1857, and was a son of Franklin Edson, Mayor of New York City from 1883 to 1885. He was a graduate of Columbia, and a member of the famous Columbia crew which won the four-oared race at Henley in 1878. He was graduated from P. and S. in 1881. His brother, Dr. D. O. Edson, is of the opinion that Dr. Cyrus was unable to withstand his attack of pneumonia owing to weak heart which obtained through his former hard athletic work in college.

Dr. Nicholas Senn, of Chicago, the well-known surgeon, has been suffering from an infected right hand. The infection is supposed to have had its origin in a pus case on which the Doctor had operated.

The eighth annual meeting and dinner of the Long Island Alumni Association of the College of Physicians and Surgeons, Columbia University, was held at the "Assembly," Brooklyn, on November 23, 1903. Albert M. Judd, president, in the chair. Professor Joseph Blake, of the College, was the guest of the evening, and spoke most interestingly on "The College as It Is To-day." James P. Warbasse followed with the toast "Medicine and Its Relation to the Progress of Civilization;" other speakers were Walter J. Corcoran and George A. Ostrander of the class of 1858. At the business portion of the meeting the following officers were elected for the ensuing

year: Henry P. De Forest, president; Addison Raynor, treasurer, and William C. Woolsey, secretary; A. M. Judd, trustee. There were forty-four alumni present at this meeting, and the Association cordially invites all recent graduates and any who have not heretofore affiliated themselves with the organization to do so at the next meeting, 1904.

The new buildings of the Training School for Nurses, attached to the City, Maternity, Gouverneur, Harlem and Fordham hospitals, were opened on Blackwell's Island in November. The central building has been named Schuyler Hall, in honor of Miss Louisa Lee Schuyler, founder of the State Charities Aid Association and organizer of the Bellevue Training School for Nurses, the first general training school in the United States. The left wing has been named for Mrs. Cadwalader Jones. The right wing is named for Mrs. William B. Rice, Vice-President of the State Charities Aid Association.

The name of Dr. J. W. Fleming should have been given in the list of members of the Council of the Long Island College Hospital recorded last month.

Dr. Arthur Mathewson, Professor of Otology in the Long Island College Hospital, has directed our attention to the fact that our news item stating that he intends to give up active practise and leave for Washington, D. C., in the near future was an error. Our statement was based on an "interview" inadvertently published in a daily paper. Dr. Mathewson tells us that this "interview" was unauthorized and printed without his knowledge. It is the Doctor's intention to remain in Brooklyn and continue his professional work with his partner, Dr. Jameson, as heretofore. It gives us pleasure to reassure Dr. Mathewson's many friends regarding the erroneous statement in regard to his eyesight. It is as good as it ever was. It is a distinct pleasure to learn that Dr. Mathewson will remain in the city.

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## BOOK REVIEWS.

**SURGICAL DISEASES OF THE ABDOMEN, WITH SPECIAL REFERENCE TO DIAGNOSIS.** By Richard Douglas, M.D. Phil., P. Blakiston's Son & Co., 1903. xii, 17-883 pp., 20 pl. 8vo. Price: Cloth, \$7.00; Sheep, \$8.00.

The author's effort to elucidate the difficulties in the diagnosis of abdominal diseases has resulted in an excellent treatise upon this important subject. The author shows a wide knowledge of current literature from which he quotes liberally. A practical acquaintance with proper surgical procedures is required to solve those perplexing problems which are encountered in ab-



dominal diseases, the proper solution of which depends upon clinical experience.

The opening chapter on peritonitis is an able and scholarly exposition of the pathological process which logically forms the ground work of the diseases which follow. The author believes in early surgical intervention, and in case of doubt throws the balance in favor of exploratory incision. All the chapters are well written and are in accord with the latest and best surgical dicta. Special praise is due the chapter on the Gall-bladder and Bile Ducts. About this field surgical interest has centered for some time; out of the mass of literature and the multitude of opinions the author has formulated dicta in which the best surgical thought will acquiesce. In the chapter on the intestines, the omission of diseases of the rectum is still open for an explanation which he explains. The author's inconsistency is apparent when he says "since the rectum properly belongs to pelvic surgery, it is not considered in the domain of this work," yet the concluding one hundred and thirty-three pages of the book are devoted exclusively to pelvic diseases.

The author's style is usually clear and convincing if not always elegant. When the author speaks of the bacillus coli playing "a star engagement" the metaphor becomes mixed if not meaningless.

A great deal of hard and honest work is evidenced throughout the pages of this work, and its perusal will repay both the specialist and general practitioner in valuable hints for more exact methods in diagnosing abdominal diseases. WILLIAM FRANCIS CAMPBELL.

PROGRESSIVE MEDICINE. September, 1903. Vol. 3. Diseases of the Thorax and Its Viscera, Including the Heart, Lungs, and Blood-vessels—Dermatology and Syphilis—Diseases of the Nervous System—Obstetrics. Phil. and N. Y., Lea Bros. & Co., 1903. 398 pp. 8vo. Price: Cloth, \$2.50.

We have in this volume a very satisfactory résumé of the recent literature on Diseases of the Thorax and Its Viscera, Dermatology, Syphilis, Diseases of the Nervous System and Obstetrics. Progressive Medicine has become an established factor in presenting to busy practitioners all the current literature in a condensed form. This volume will be found up to the high standard of previous editions and the contents interesting throughout. WILLIAM FRANCIS CAMPBELL.

PROGRESSIVE MEDICINE. June, 1903. Vol. II. Surgery of the Abdomen, Including Hernia—Gynecology—Diseases of the Blood and Ductless Glands. The Hemorrhagic Diseases. Metabolic Diseases. Ophthalmology. Phil. and N. Y., Lea Bros. & Co., 1903. 427 pp. 8vo. Price: Cloth, \$2.50.

Progressive Medicine is by far the best work devoted to the résumé of current medical literature that we can obtain. A glance through this volume will demonstrate to the reader that some such work as this is necessary in order to keep up with the enormous amount of material which this volume condenses into clear, concise and practical form. This volume discusses the progress in Abdominal Surgery, Gynecology, Diseases of the Blood, and Ophthalmology. The arrangement of material and illustrations is excellent throughout. WILLIAM FRANCIS CAMPBELL.

MODERN MATERIA MEDICA AND THERAPEUTICS. By A. A. Stevens, A.M., M.D. Third Edition, Entirely Rewritten. Phil., N. Y. and Lond., W. B. Saunders & Co., 1903. 663 pp. 8vo. Price: Cloth, \$3.50.

This is an excellent treatise on Materia Medica and Therapeutics. The drugs are classified according to their pharmacological action, and the differentiation is more

finely made than in many similar works. The account of the numerous remedial measures other than drugs includes phototherapy, X-ray therapy, the Schott treatment for heart disease, movement therapy in locomotor ataxia, and the various uses of colon irrigation. There are many valuable prescriptions scattered through the book, both in the section on drugs and that on applied therapeutics. The latter section, which occupies about one-third of the book, is reasonably full and thoroughly up-to-date. E. E. CORNWALL.

TEXT-BOOK OF DISEASES OF WOMEN. By Barton Cooke Hirst, M.D. Phil., N. Y. and Lond., W. B. Saunders & Co., 1903. 683 pp., 13 pl. 8vo. Price: Cloth, \$5.00; Sheep or Half Morocco, \$6.00.

Dr. Hirst's large experience in gynecology has enabled him to compile an interesting book. His subject is treated exhaustively, especially as regards the modern technic of gynecic surgery. The illustrations are excellent, special mention being made of those drawings relating to the different methods of ligating the ovarian and uterine arteries during abdominal section.

Both palliative and radically operative treatment has been described in a full and concise manner. As a text-book it is admirably adapted to its purpose.

CLARENCE R. HYDE.

THE PRINCIPLES AND PRACTICE OF GYNECOLOGY. For Students and Practitioners. By E. C. Dudley, A.M., M.D. Third Edition, Revised and Enlarged. Phil. and N. Y., Lea Bros. & Co. 1902. 761 pp., 22 col. pl. 8vo. Price: Cloth, \$5.00.

One is distinctly impressed on reading this book that the author follows out in many instances the teachings of Emmet, under whom Dr. Dudley studied in the Woman's Hospital. Especially is this so in his chapters on Plastic Surgery. The gynecological world has yet to lose the influence of Emmet's ideas.

A feature not noted in other text-books and seen in this volume is the many tables of differential diagnoses appended to the different chapters. For use of students this is invaluable.

Consecutive steps in many of the major operations are illustrated with numerous drawings showing each procedure of the technic in detail.

The author's operation for anteflexion merits special mention. It is the only operation devised which carries with it a radical cure of the flexion. All ex-house surgeons of the Woman's Hospital will recall Dr. Thomas Addis Emmet telling of Sims' first venture in this line and his use of the glass plug to keep the cut surfaces apart during healing. Dudley has improved on Sims, refined his operation, as it were, and established it on a sound operative basis. Dudley's operation cures the flexion. It is well to note, however, that this operation should be performed on selected cases only.

The typography and plates are excellent.

CLARENCE R. HYDE.

GYNECOLOGY. A Text-book for Students and a Guide for Practitioners. By William R. Pryor, M.D. N. Y. and Lond., D. Appleton & Co., 1903. xvi, 380 pp. 8vo. Price: Cloth, \$3.50.

This volume is limited strictly to gynecology. A full description of rare diseases is omitted and there is also a notable absence of minute anatomy and bacteriology.

The author has infused his own individuality in this work, and, for that reason, it is a pleasure to read a gynecology which is not made up of a *re-hash* of the theories and operations of other authors, and in which one need not peruse page after page of gynecological technic and methods abandoned by modern workers in this special field.



The Chapter on Conservative Surgery deserves mention, and surgeons may well take note of the proper method of operating on pyo-salpinx by the abdominal route, *i.e.*, excision of the cornea—a detail too often neglected. A very readable chapter is that on management of patients after laparotomy, also the one devoted to cancer. The author's operation for advanced inoperable carcinoma uteri is distinctly individual. After opening the abdomen the ovarian, obturator and internal iliac arteries are ligated by a very simple technic, with the idea of starving the growth. Vaginal curettage of the cancerous cervix follows.

We note the author's frequent use of silver wire as a suture material in trachelorrhaphies, perineorrhaphies, and vesico-vaginal fistulae, occasionally also in ventral herniae.

Each disease is classified and treated in a terse and lucid manner. Solid facts are given, and the reader is not over-burdened with unprofitable reading. This, with the excellent diction, makes the book a readable one, even for advanced students.

CLARENCE R. HYDE.

CLINICAL EXAMINATION OF THE URINE AND URINARY DIAGNOSIS. A Clinical Guide for the Use of Practitioners and Students of Medicine and Surgery. By J. Bergen Ogden, M.D. *Second Edition, Thoroughly Revised.* Phila., N. Y. and Lond., W. B. Saunders & Co., 1903. Col. front., 2 l., 9-418 pp., 10 pl. 8vo. Price: Cloth, \$3.00.

This book is divided into two parts. The first part deals with the methods of urinalysis, both chemical and microscopical; the second with the diagnostic inferences to be drawn from the results of the examination.

The methods are well chosen and the technics clearly described. A considerable number of useful and practical details, arising from the author's experience, and which will prove of value to the comparative novice, are embraced in this portion of the book. The particular value of the work is, however, the amount of space given to the discussion of the diagnostic side of urinary examinations. Thus Part II, comprising something over one-quarter of the book, is devoted to the diagnosis and differential diagnosis of disturbances and diseases of the kidneys and urinary passages, with concise statements of the prominent symptoms of each, and, in addition, a consideration of the characters of the urine in various general diseases.

The book is well made and well illustrated. The index is distinctly inadequate, *e.g.*, neither "alloxur bases" nor "purin bodies," appear, although these terms are defined on page 72.

The Second Edition, now under review, has been thoroughly revised and brought down to date. It can be commended as a thoroughly good and useful treatise, which in some respects is distinctly superior to others upon the same subject.

GLENTWORTH R. BUTLER.

PRACTICAL MEDICINE SERIES OF YEAR BOOKS. MAY, 1903. VOL. VI.—GENERAL MEDICINE. Edit. by Frank Billings, M.S., M.D., and J. H. Salisbury, M.D. Chicago, Year Book Publishers, 1903. 316 pp. 12mo. Price: Cloth, \$1.50.

PRACTICAL MEDICINE SERIES OF YEAR BOOKS. JULY, 1903. VOL. VIII.—Materia Medica and Therapeutics. Preventive Medicine. Climatology. Suggestive Therapeutics. Forensic Medicine. Chicago, Year Book Publishers, 1903. 326 pp., 12 mo. Price: Cloth, \$1.50.

This series of small and handy year books has won its way into popularity. The division of the general sub-

ject into several small volumes, each complete in itself, has obvious advantages in use over a large and less easily handled book, nor is one obliged to purchase a volume in whose contents he is not interested. Much discrimination has been exercised as to the material admitted, and the series is not made a dumping ground for all kinds of medical rubbish. The abstracts have been well made, and essentials have not suffered from the effort after conciseness. These books can be commended to those who desire a convenient and available epitome of yearly medical and surgical advances.

GLENTWORTH R. BUTLER.

TEXT-BOOK OF PATHOLOGY. By Alfred Stengel, M.D. *Fourth Edition, Thoroughly Revised.* Phil., N. Y. and Lond., W. B. Saunders & Co., 1903. 933 pp., 17 pl. 8vo. Price: Cloth, \$5.00; Sheep or Half Morocco, \$6.00.

Stengel's Text-book of Pathology needs no longer the encomiums of the press, or the justly deserved praise of the reviewer. It is unquestionably the best treatise upon the subject for medical students to be found in the English language; and it is also valuable in the hands of the general practitioner.

The fourth edition is thoroughly up-to-date, and in its rearrangement and additions greatly perfected. For the purpose for which it was intended, and as a piece of publishing, it is a model of style and elegance. The illustrations are beautiful, well chosen and accurate.

The treatment of Ehrlich's side-chain theory is one of the best the writer has seen; and the chapters on inflammation and the bacterial diseases are comprehensive, and thoroughly modern.

JOSHUA M. VAN COTT.

PRACTICAL MEDICINE SERIES OF YEAR-BOOKS. September, 1903. Vol. X. Skin and Venereal Diseases. Nervous and Mental Diseases. Edit. by W. L. Baum, M.D., and Hugh T. Patrick, M.D. Chicago, Year Book Publishers, 1903. 236 pp. 12mo. Price: Cloth, \$1.25.

A review of the above small volume (in and of itself essentially a review) would seem to us somewhat supererogatory; still it may and will be interesting reading for those interested in the matters dwelt on; we speak more particularly of its dermatological portion. It may be also said, however, that there is room for criticism as to its statements and conclusions in part, with some of which we do not agree; this as aforesaid to the dermatological side.

Of the division and chapters treating on the state and progress of Neurological Science, we are unable to be authoritative in any sense; they seem well written, and will bear perusal by the illuminati occupied in that branch of medicine.

S. S.

MEDICAL JURISPRUDENCE. A Manual for Students and Practitioners. By Edwin Welles Dwight, M.D. Phil. and N. Y., Lea Bros. & Co., 1903. 249 pp. 12mo. Price: Cloth, \$1.00. [*The Medical Epitome Series.*]

This little work presents a very good epitome of certain parts of this subject as viewed from a medical standpoint. It unfortunately makes but little attempt to consider any but criminal jurisprudence, while today civil actions or negligence cases are much more apt to take the physician into court than criminal ones, and of this side of the subject it makes but little reference. Neither does it aid the student in giving him any hints as to the theory of evidence, so that it may aid him in conforming his answers to the rule of law. This fault is not, however, peculiar to itself, but is to be found in many more pretentious works. Otherwise it is a very creditable condensation.

A. C. BRUSH.

# BROOKLYN MEDICAL JOURNAL

VOL. XVIII.

BROOKLYN-NEW YORK, FEBRUARY, 1904.

No 2.

## ORIGINAL ARTICLES.

### MEMORIAL ADDRESS.

BY JAMES P. WARBASSE, M.D.,  
Chairman of the Historical Committee.

Delivered before the Medical Society of the County of Kings,  
New York, December 15, 1903.

During the past year the following active members of this Society have died: Joseph Edwin Clark, Eugene Earle Woolworth, John Jay Conway, John Frederick Golding, John Lyal Henry Waldie, Thomas Moore Rochester, Charles A. H. de Szigethy, and Joseph M. Harcourt; also the following practitioners of medicine in this county who were formerly members of this Society: Susan R. Pray, John Frank Valentine, Thomas Naegle De Bowes, Ashley Adam Webber, Charles Henry Jones, Frederick Matson Nehrbas, Thomas A. Pineo, James A. Roache, John Van Harlingen, George Chappell Crawford, Henry De Haven Cameron, and William Francis Moran.

Of all the occupations in which man can employ himself, none is so elevating, so productive of the best culture, so humanizing, so broadening and inspiring as helping others. Helping others who were in distress, this has been the occupation of the men to whose memories we pay our tribute of respect. Not helping another to secure some advantage over his neighbor; not helping himself by inflicting injury upon his fellow men—these are the affairs of the great world of business and commerce—but helping another to relief from suffering or illness to the harm of no man, and pointing the way to the avoidance of pain.

It can be said to the credit of medicine that in this very striving to help others they have best helped themselves. It can be laid down as a medical axiom that the doctor who does, without consideration of himself, the thing that is best for his patient—rich or poor, grateful or ungrateful—is doing what in the end is best for himself. It was given these men to have enjoyed the hu-

manizing and uplifting which comes out of the practice of the profession in which they lived. Whatever the character of a man may be, the practice of medicine makes him better.

Who is not familiar with the boisterous, flip-pant, uncouth class of medical students? Ten years of medical practice finds these same men full of serious thought. Twenty years has touched them with tenderness and humanity. And, if the portion of financial success has not been too great, thirty years will be found to have wrought a wealth of mellowness of character, sympathy and gentleness, broadmindedness and charity. And of all the noble men, we love the patriarch of medicine, whose life was well started and spent in faithful service. He has struggled with the questions of life, and it has made him self-reliant. He has seen hopes blasted and deferred, and it has made him patient. He has seen the sorrows of the day remedied by the morrow, and it has made him hopeful. He has learned the rewards of good work, and it has made him faithful. Faith, hope and charity he has, and unto these he has added wisdom. His brow is crowned with the snow-white wreath of victory, and his memory is lovingly preserved in the hearts of men.

The men whose names I have read to you were our brothers. They have ceased from their labors. Their rewards they have reaped, and their penalties they have paid. They were honorable members of an honorable profession. Their opportunities for doing good and living the highest life were many. That they grasped these opportunities we believe full well. Each walked in the light as he saw it. Their works live on. All that they did is as imperishable as human kind. Every service rendered in the house of pain has become a record to their lasting glory: not on cold tablets of stone or in the mutable pages of history, but in the warm and living souls of men, thence to be transmitted as a blessed heritage to the children of generations yet unborn. Their good deeds continue always to pass from man to man in ceaseless diffusion, adding to the joy and goodness of the world.



The lives of those yet to come shall be made sweeter by that invisible choir which catches up and makes undying, and transmits each act of tenderness and love. This is immortality.

"Thus shall they continue  
To make undying music in the world,  
Breathing as beauteous order that controls  
With growing sway the growing life of man.  
This is life to come  
Which martyred men have made more glorious  
For us who strive to follow. May we reach  
That purest heaven, be to other souls  
The cup of strength in some great agony,  
Enkindle generous ardor, feed pure love,  
Beget the smiles that have no cruelty,  
Be the sweet presence of good diffused,  
And in diffusion ever more intense.  
So shall we join the choir invisible  
Whose music is the gladness of the world."

As we pause in the contemplation of the lives of these men, what lesson shall we learn? What moral shall we glean? Simply this: Do always the best we can. Next to helping others nothing is more uplifting or morally educating than the endeavor to do things well. Striving to do something well is a religious act. The endeavor to make something perfect is a holy service.

And then, too, we may be kind. The old Quaker said: "I expect to pass through this life but once. If there is any kindness, or any good thing I can do to my fellow beings, let me do it now, I shall pass this way but once." It is not in the power of all to do great works, but it is in every one's power to endeavor. It is not in the power of all to secure honors, but it is in every one's power to be worthy of honor. It is within the grasp of every man to be generous, fair and good.

And finally we should not lose sight of the educating influence of the contemplation of death. Our lives are modified and constantly influenced by this thought. That sometime our work and our pleasure must stop is the most dominant of all our thoughts, and yet the most unconscious. And we set the course of our lives accordingly. The voice of death is an omnipresent undertone which never dies out of the air. We are so accustomed to it that we scarcely notice its presence. It is like the monotonous roar of the waves upon the shore. The ships, the clouds come and go. Sunshine and darkness alternate. Calm and tempest play upon the scene. But, low at times and loud at times, the deep and ominous cadence of the waves is always present.

## BECK'S OPERATION FOR HYPOSPADIAS.

BY A. T. BRISTOW, M.D.

The older operations for the relief of hypospadias were, as a rule, unsatisfactory, and not a few of them left the patient in a worse condition than before. They had two radical defects, first, that the skin flaps from which the new urethra was constructed were unsuitable for the purpose of forming a channel for urine, since skin can never successfully replace mucous membrane, and second, union between the opposed raw surfaces was always interfered with by the passage of urine. The operation of Beck overcomes both of these difficulties, inasmuch as he makes use of the fact that the tissues of the urethra possess a

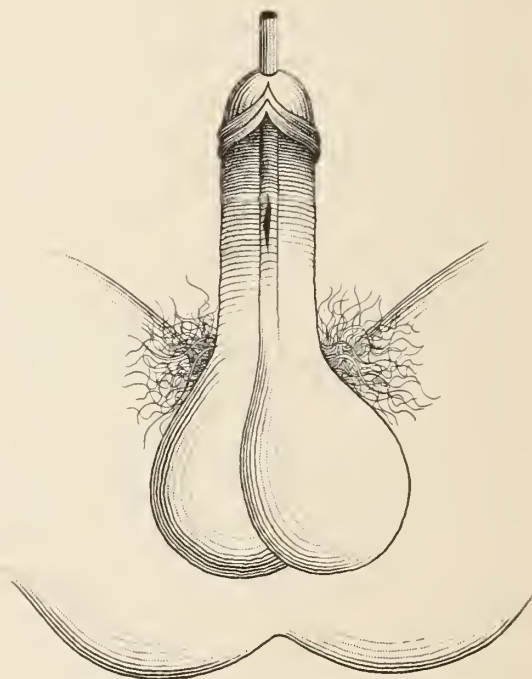


FIG. I.

high degree of extensibility as well as distensibility. A familiar example of this fact is the lengthening which takes place in the urethra during erection. The operation is, of course, only applicable to the penile variety of the deformity and there must be sufficient urethra to bring forward and admit of anchorage in its proper situation. Briefly described the operation is as follows: Commencing at the abnormal outlet an incision is made over the urethra and carried toward the root of the penis for a sufficient distance to completely expose the urethra and cor-



pus spongiosum. This is then freed at its extremity and dissected away from its bed between the corpora cavernosa until sufficient slack has been procured to admit of fastening the extremity of the urethra in its normal situation in the glans. This is sometimes tunneled by Beck with a sharp straight bistoury, and the urethra having been pulled through the opening thus made is then secured to the glans by four silk sutures, or if a distinct cleft exists in the glans the sides of the cleft are freshened and brought together by silk sutures over the urethra, which is

is a young man of 19 years of age on whom I operated three times after this method. Each operation advanced the urethra, but I did not make a complete success until the third operation, owing to the fact that I did not go far enough towards the pubes at the previous operations and free sufficient length of urethra. As a consequence there was too much tension on the sutures and the urethra slipped from its anchor-

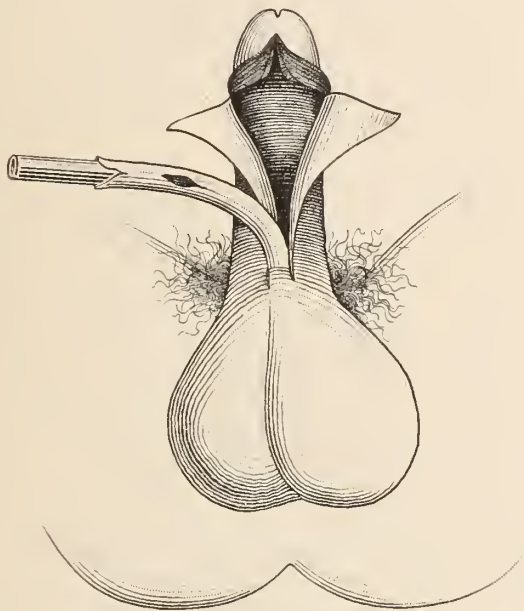


FIG. II.

secured by four sutures as before. The reflected skin is then stitched over the urethra and a wet dressing is applied. No catheter is used, but the patient is required to urinate through the transplanted urethra. No urine comes in contact with a long line of union and the natural tissues are utilized. It is important to dissect enough urethra from the corpora cavernosa so that its extremity can be sutured to the glans with but little traction, otherwise it will soon tear away and retract. A rubber tube drawn tightly around the root of the penis facilitates dissection by checking hemorrhage. It is of importance to administer chloral and bromides afterwards in sufficient doses to prevent the occurrence of erections. The patient I present

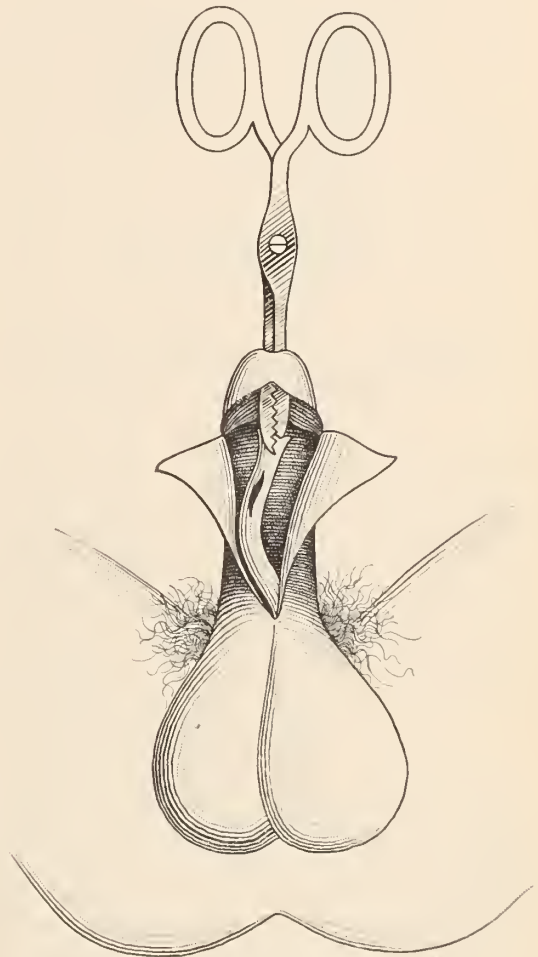


FIG. III.

age in the glans. The final result is excellent, however. There is, you see, some flattening of the glans penis, but the urethra has remained in its normal position and little traces of the operation are visible. For a time after such an operation there is some bowing of the penis during erection, but this gradually disappears. Any subsequent tendency to contraction of the meatus may be guarded against by the introduction of a short sound for about an inch, just sufficient to

keep the new meatus dilated. This operation has been most satisfactory and answers equally well in young boys, although I do not think it should

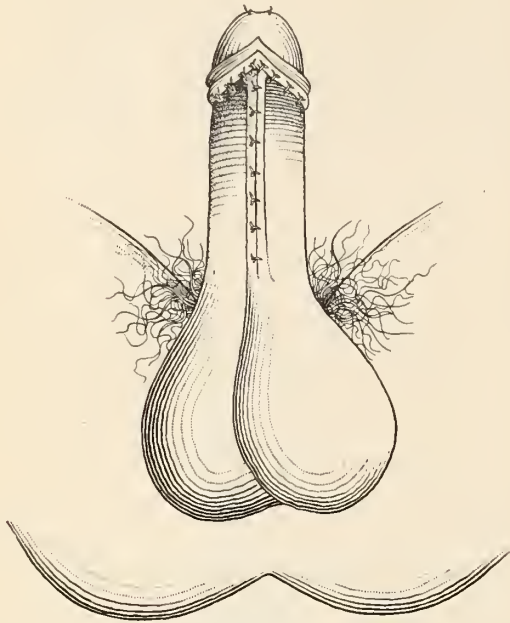


FIG. IV.

be done during infancy. The illustrations are from drawings which were kindly made for me by Dr. F. H. Clark, to whom my thanks are due for his courtesy.

#### NORMAL INVOLUTION OF APPENDIX.\*

BY ROBERT T. MORRIS, M.D., NEW YORK.

When Senn and Ribbert described the involution changes which occur normally in the *appendix vermiformis*, no reference was made to the symptoms accompanying this change, but which are sometimes of considerable importance.

Pathologically the change consists at first in a replacement of the lymphoid and mucous layers of the appendix with connective tissue, and this eventually includes the muscularis and all tissues excepting the peritoneum in many cases. Nerve filaments seem to persist in the connective tissue for a longer time than any of the other normal structures, and microscopical section of an involution appendix will often show such an aggregation of new cells about the nerve filaments, that the evidence of irritation is well marked. The

three specimens which are passed about for the audience to examine show a normal appendix, an appendix in the first stages of acute infective appendicitis, and an appendix with typical involution replacement of the lymphoid and mucous layers. The object lesson is more impressive than any sort of description.

The symptoms that go with normal involution of the appendix are dependent upon the fact that the persisting nerve filaments are irritated in the contracting connective tissue, very much as are the nerve filaments in the contracting scar of the stump of an amputated arm. In fact, I prefer to have these appendices called "scar appendices" or "involution appendices" rather than to have them carry my name, for the reason that they were described by Senn and Ribbert long before my own studies of the matter began, and any other nomenclature is simply a matter of habit that began with some of my assistants.

Irritation of the sensory nerves which are entrapped in the scar tissue gives rise to the discomfort or pain in the appendix region, although there is not often much tenderness elicited by pressure. Irritation of the sympathetic nerves entrapped in the scar seems to be the feature of greatest consequence, because the sympathetic ganglia with which they are connected soon respond, and the resulting functional neuroses involving the digestive process leave a train of complicated disturbances of nutrition in their wake. The intimate ganglia of the bowel wall (Auerbach's and Meissner's plexuses) are disturbed in their function, and the resulting "intestinal fermentation" is apt to be considered as a diagnostic entity while the real cause for the trouble is overlooked. As a result of the intestinal fermentation the patients are in a state of general unrest much of the time with health constantly below par, and while they respond to medical treatment so long as it is continued, the favorite prescription and the diet list are apt to wear out, and the patients go the rounds of the profession, regular, irregular and defective. On account of the discomfort or pain in the appendix region the cases often get to the surgeon, as cases of appendicitis, and although there is no history of acute attacks or of an infective process, operation is sometimes performed, and what seems to be a normal appendix is removed. This accounts for the numbers of cases in which surgeons have been twitted upon a mistake in diagnosis, and yet the patients promptly had better health than they had enjoyed for years. Closer examination of the "normal

\* A paper read at the meeting of the Brooklyn Medical Society, Oct. 16, 1903.



appendices" in such cases reveals the fact that the inner layers of the appendix have been replaced by connective tissue. In all probability patients suffering from normal involution of the appendix are less apt to have true infective appendicitis than others, for the reason that there is less mucosa and lymphoid tissue to swell and cut off its circulation in the muscular tube. It may be that in some cases with irregular connective tissue replacement, forming scar rings, the danger of the mucous inclusion is increased.

In making a differential diagnosis the involution appendix is felt to be harder than normal on palpation, but the subjective symptoms may be similar to those caused by congestion of the appendix in association with a loose kidney, by irritation of the solar plexus as a result of eye strain, by irritation of large sympathetic ganglia by peritoneal adhesions, by "lithemic inflammation" of the lymphoid layer of various parts of the bowel wall, by tuberculosis of the peritoneum in its early stages, and by hysteria. These at least are the commoner things that are to be ruled out in making a diagnosis.

The fact of normal involution of the appendix having been determined in any given case, the question of removal of the appendix is one that comes up for consideration. My own attitude in the matter is to leave the question entirely to the patient, allowing him to put the matter upon the ground of comfort and expediency rather than upon the ground of danger, as one would do in a case of infective appendicitis. In the latter case we do not allow the patient or his friends to take any responsibility for which they are not properly qualified.

White publishes an account of a case of diabetic intraocular lipæmia, in which the blood was examined during life (*The Lancet*). Directly he looked at the patient's eye, he noticed that the retinal arteries and veins both appeared to have in them blood of a pale salmon color; retina was pale. As the patient improved the color in both sets of vessels became more healthy and was quite natural after he had been in the hospital (Guy's) two months. He was admitted to the hospital, a week later he was bled, only a small quantity of blood being taken. It was milky, and the serum after clotting was milky. Under microscope many fine granules were seen, but no globules or anything that stained with osmic acid. He was again venesected a month later. The patient's improvement was shown by the increasing weight from 105 pounds to 128 pounds in three months.

## FURTHER OBSERVATIONS UPON THE CONTROLLING INFLUENCES OF THE OVARIAN PLEXUS.

BY W. L. CHAPMAN, M.D.,

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AND

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On September 17, 1901, the writers of this paper presented to the Kings County Medical Society a preliminary communication dealing with "The Ovarian Plexus and its Controlling Influences." In this paper the opinion was expressed that the ovarian plexus is the controlling nerve supply to the ovaries, tubes and uterus—the path along which are conveyed the predominating impulses to these organs. In support of this theory, arguments were offered based upon the following facts:

1. The existence of a close relation between the functions of these organs and the anatomical distribution of the ovarian plexus.

2. The observation of clinical cases which demonstrate the truth of the assertion that pathological conditions involving the nerve fibers of this plexus in their course, disturb the functional activity normal to these organs.

3. The results of experiments upon pregnant cats, which proved that electrical stimulation applied along the course of the fibers entering into the formation of the plexus, produced contractions of the uterus and tubes.

The purpose of the preliminary paper was to present the results of our investigations as to the innervation of the female generative organs. The following additional material has been gathered and is now presented in support of the original claim.

The anatomy of the ovarian plexus has been minutely described in the preceding paper, and in order to demonstrate clearly from an anatomical standpoint, the predominating influences exercised through this plexus, it is necessary to contrast with it the anatomy of the uterine plexus.

The uterine plexus is formed by the union of the hypogastric plexus with the sacral sympathetics and the third and fourth sacral nerves. At the point where this union takes place there is a cluster of small ganglia, called the cervical ganglia of Frankenhauser, being situated upon either side of the cervix uteri just at its junction



with the vaginal wall. From this point the plexus spreads out in a fan-like shape, following and encircling the branches of the internal iliac artery. The plexus distributes its branches to the uterus, vagina, rectum, bladder, lower portion of ureter, the broad ligaments and pelvic fascia. As those branches to the uterus and broad ligaments are the only ones through which any direct influence might be exerted upon the functions of the uterus, a consideration of the other branches may be omitted. The branches passing to the broad ligament take a direction upward between its layers; some are distributed to or terminate in the substance of the ligament, while others unite with branches descending from the ovarian plexus.

The branches which pass to the uterus are few in number and supply the lower uterine segment. They are composed mainly of fibers derived from the third sacral nerve, and as yet no ganglia have been found upon them after entering the substance of the uterus. No fibers can be traced from the uterine plexus into the substance of the uterus, above the internal os. Some of the fibers to the broad ligament may enter the uterus after uniting with branches from the ovarian plexus.

The consensus of opinion as to the physiology of the sympathetic nervous system is that the sympathetic ganglia are essentially trophic in their action. They are capable of but a limited automatic action, and in order that a plexus may transmit impulses to its peripheral termination, it must first receive the stimuli through fibers having either a spinal or cranial origin. Such being the case, it is important to compare the relations which exist between the ovarian and uterine plexuses and the central nervous system.

The uterine plexus receives its connections with the spinal cord mainly from the third sacral nerve with some branches from the fourth, and at times from the second. The hypogastric portion of the plexus also has spinal connections through the rami communicantes of the first and second lumbar ganglia. As the rami communicantes passing to the hypogastric portion arise in the lumbar portion of the spinal cord and the sacral nerves likewise arise from the same region, it appears that the only connection which exists between the uterine plexus and the central nervous system lies in the lumbar section of the cord. It is highly probable that this is one of the facts which have led physiologists to believe in a controlling center located in this portion of the cord.

The ovarian plexus is derived from the renal and upper aortic plexuses. These derive their

fibers from the solar plexus upon the left side and from the solar and hepatic plexuses upon the right. The connections of these plexuses with the central nervous system are through, 1, the rami communicantes of the lower dorsal ganglia; 2, the greater and lesser splanchnics; 3, fibers from the pneumogastric nerve. The vast difference thus shown in the connections of the uterine and ovarian plexuses with the central nervous system is quite sufficient to indicate the greater importance which must be attached to the ovarian plexus. The uterine plexus has but a spinal connection, while the ovarian plexus has, in addition to its spinal, a direct cranial connection through the pneumogastric nerve.

The anatomical connections of the vagus with the ovarian plexus may be traced as follows: The pneumogastric nerve, after supplying the stomach, enters into the formation of the solar plexus. Here it divides into numerous branches which enter the various plexuses derived from the solar plexus, some fibers entering the pancreas directly. Most of the branches have been traced by various writers. Those branches to the genito urinary system are the ones to which we wish to call attention in this paper.

The renal plexus is composed of two portions, viz., 1, fibers from the aortico-renal ganglion, and 2, fibers from the solar plexus. The branches from the vagus enter the plexus through the portion derived from the solar plexus. At the point where the two portions of the renal plexus unite, the branches from the vagus divide into three portions. One enters the suprarenal plexus; the second continues in the renal plexus, and the third enters the ovarian plexus through the portion of that plexus which is derived from the renal plexus.

The method of dissection which has been followed in the determination of these anatomical factors has been as follows: The abdomen is freely opened by the usual crucial incision, one extending along the linea alba from the ensiform cartilage to the symphysis pubes, the other across the abdomen at the level of the umbilicus from the quadratus lumborum on one side to that upon the other. The four flaps thus formed are reflected outward, exposing the entire abdominal cavity. The great omentum is divided in order to free the stomach from the transverse colon. At the same time, the gastro-splenic omentum is severed. This allows the transverse colon to be drawn downward and secured. The stomach is lifted upward and toward the right side. The retro-gastric fossa is now freely exposed.

The posterior layer of the parietal peritoneum is divided at the dorsal border of the liver and gently lifted from the crura of the diaphragm by blunt dissection, using wet sponges or one's finger ends in this "peeling off" process. In this manner the dissection is carried downward until the upper border of the pancreas is reached. While traction is being exerted upon the detached peritoneum the pancreas is gently lifted from its bed of sub-peritoneal connective tissue and drawn downward, exposing the solar and renal plexuses lying upon and about the aorta and its branches at this point. A tallow candle is now placed in the retro-gastric fossa and a strong hand lens is made use of in tracing the course of the nerve fibers.

The right pneumogastric nerve is located, communicating with the posterior wall of the stomach, and after freeing it from its attachments it is dissected down as far as possible. While observing the solar and renal plexuses with the aid of the lens, traction is made upon the trunk of the vagus which raises its branches and indicates their course as has been described. An essential point in this method of dissection is the candle light. Of the different forms of illumination this is the most suitable for this form of work. Sunlight is difficult to introduce into the body cavity and is useful only for a few hours in the early morning, when it possesses a yellow tinge and is of a low refractive power. It is difficult to adjust gaslight to the point desired. Conducted through stiff connecting tubing and attached to clumsy burners, it is hard to handle. The electric light is useless. It is white, of a high refractive power, and when thrown upon connective tissue which is highly refractile the field of vision is obscured. The dissection should be made upon a fresh body not more than forty-eight hours dead, and preferably upon a young subject within the child-bearing period.

Just how great importance must be attached to the pneumogastric nerve is not as yet determined, but certain facts in its connection with the ovarian plexus are at least interesting. The center which presides over the functions of the sexual organs has been located in the medulla, and some physiologists have gone so far as to claim its location to be in the floor of the fourth ventricle. This is the point of origin of the pneumogastric nerve.

Head, in his researches dealing with areas of sensitiveness in visceral disease, found that pathological conditions in organs supplied by the pneumogastric nerve were accompanied by ten-

derness in the regions supplied by the fifth cranial and the first two spinal nerves. This fact may account to a certain extent for the facial neuralgias and occipital headaches so frequently met with in cases of uterine and ovarian disease. It is interesting to note in this connection that all the sympathetic plexuses which supply the important viscera have connections with the brain through the vagus and with the spinal cord through the splanchnics and rami communicantes.

Having compared the gross anatomy of the two plexuses and their connections with the central nervous system, they may now be examined histologically. The ovarian plexus is composed solely of small medullated fibers and the non-medullated or gelatinous fibers of Remak. The uterine plexus is composed largely of coarse medullated nerve fibers. According to Gaskell, the only visceral nerves derived from the central nervous system, are the small medullated type of nerve fiber. This type of nerve is found only in the splanchnics, the white rami communicantes and the pneumogastric nerve. The fibers of this type having spinal connection, arise in Clarke's column. These small medullated fibers he terms the "Rami Viscerales." Coarsely medullated nerve fibers, from the character of the fiber and their origin in the spinal cord, are of the skeletal or somatic type and are not destined to supply the viscera. The only true visceral rami found in the uterine plexus are derived from the hypogastric portion.

The importance of this difference in the character of nerve fibers composing the two plexuses, can be readily understood. The ovarian plexus contains only true visceral rami, whereas the uterine plexus contains a large number of somatic nerves which have no control over viscera.

Referring once again to the distribution of the fibers of the ovarian plexus and comparing the same with the distribution of the uterine plexus, it is of value to note that in the generally accepted description of these anatomical relations, certain important factors have been omitted. The ovarian plexus has not received as accurate nor as extensive a description as its importance deserves. It should be noted that the uterine plexus sends no branches whatever to the ovary, while the ovarian plexus supplies the ovary, tube and the most important portion of the uterus. The significance of the joint nerve supply to the ovary and uterus has long been recognized, and since this joint nerve supply is effected solely through the ovarian plexus, we must accord to



this plexus the important place it deserves in transmitting the controlling influences which affect the functions of these organs. In no way is the joint nerve supply more clearly demonstrated than in the trophic action exerted upon the ovary and uterus. In order to clearly examine this trophic action affecting both ovary and uterus, we may regard the Graafian follicle as a miniature uterus. The uterus develops and expels the foetus. The Graafian follicle develops and expels the ovum. During the period of gestation the uterus is greatly increased in size, due not alone to a mechanical stretching of its muscular fibers, but also to the development of new tissue. This formation of new tissue is the result of accelerated action in the trophic nerve centers. While this anabolic action is producing its effect upon the uterus, it is at the same time active in the Graafian follicle as is indicated by the continued development of the corpus luteum. Upon the completion of labor the uterus undergoes a process of involution consisting of a fatty degeneration and absorption of the excess of tissue. Coincident with this change in the uterus, a similar involution is taking place in the Graafian follicle, accompanied by a fatty degeneration and the absorption of the corpus luteum. The inhibitory or catabolic action of the trophic nerve centers is thus actively seen in both ovary and uterus. This harmonious action in both organs would be difficult to explain if the ovary were supplied with one set of nerves and the uterus with another.

Besides this analogy of the uterus and Graafian follicle, other important features may be observed concerning the trophic nerve action upon these organs. Gestation calls forth a great increase in trophic nerve impulses and is therefore dependent mainly upon the nerve path whose origin is rich in trophic centers.

According to Gaskell, whose researches have been confirmed by Onuf and Collins, the sympathetic ganglia are essentially trophic in function. The uterine plexus is connected with only a few small ganglia. The sacral portion, connected with the sacral ganglia, is the smallest and most rudimentary portion of the ganglionated cord. The hypogastric portion is connected with the lumbar ganglia, the only peripheral ganglion being the cervical ganglion of Frankenhauser. The ovarian plexus is partly derived from the aortic-renal ganglion, which is a large segment of the semi-lunar ganglion. It is also connected with the lower dorsal ganglia through the lesser splanchnics and usually has a distinct ganglion of its own, "the spermatic ganglion." Besides

these connections the entire course of the ovarian plexus is richly supplied with peripheral ganglia.

The morphology of the uterus and its nerve supply is interesting to note. The course of the ovarian plexus, which is practically that of the ovarian artery, indicates that it has followed the development of the Mullerian ducts and developed jointly with them. It is fair to assume that the nerve supply to an organ which is developed with that organ is the essential nerve supply controlling its functions.

In conclusion: In support of the opinion that the "ovarian plexus is the controlling nerve supply to the essential female organs of generation," the arguments thus far offered are based upon the following subjects:

1. The anatomical distribution of the ovarian and uterine plexuses in relation to the functions of these organs.
2. The connections of the plexuses with the central nervous system.
3. The connections of these plexuses with trophic nerve centers and the dependency of the organs they supply upon trophic nerve action.
4. The histological structure of the plexuses, i. e., the character of the nerve fibers of which they are composed.
5. The importance of a joint nerve supply to the ovary tube and uterus which is effected solely through the ovarian plexus.
6. The development of these organs in connection with their nerve supply, upon which is based the hypothesis that the nerve supply to an organ which is developed jointly with that organ, is its essential nerve supply.
7. Observations upon clinical cases which demonstrate that pathological conditions involving the nerve fibers of the ovarian plexus disturb the functions of the ovary and uterus.
8. Experiments upon pregnant cats, which showed that electrical stimulation applied to the ovarian plexus, produced contractions of the uterus and Fallopian tubes.

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#### CONCERNING THE CLINICAL SIGNS OF ECTOPIC GESTATION.\*

BY EDWARD J. MORRIS, M.D.

The subject of Ectopic Gestation has received very considerable attention within the past two years, more particularly as concerns the question of the etiology and the symptoms. The object of this review is merely to repeat the points in diagnosis that stress has been laid upon. I will not enumerate the many causes given in the text books, but simply speak of the more important and of the principal clinical signs.

A very prominent cause in the minds of a majority of practitioners is, that tubal pregnancy is due most frequently to a constriction of the Fallopian tube consequent upon an old purulent inflammation of its mucous lining, usually gonorrheal, and that though the spermatozoid is able to pass the cicatricial narrowing, the fecundated ovum on its way to the uterus, being of larger size than the spermatozoid, is unable to do so, and, therefore develops in the outer, dilated third of the tube, until, from the increase in size, the thinned out walls rupture, and the evidences of intraperitoneal hemorrhage are presented. A history of sterility in a woman married six or seven years, or in a woman who has not borne a child for the same period, is looked for. While these facts are true to a limited extent, yet this condition forms so small a proportion of the cases, that it is well to call attention to the causes which are more often found.

According to the investigations of Herzog,<sup>1</sup> congenital malformations of the tube, such as a dome-shaped elevation of its wall forming a diverticulum, or a shelf-like projection in the interior of the tube forming a cul-de-sac, are believed to be frequent causes. Out of 30 cases studied by him such a condition was found three times. Williams<sup>2</sup> found congenital defects in 5 out of 30 cases.

Peritoneal adhesions act here as they do in intestinal obstruction, except that as the pelvic peri-

toneum is more often exposed to infection, the frequency of their occurrence about the Fallopian tube is proportionately increased. A woman has an abortion produced, infection follows, she is sick for a period of perhaps two to four weeks, adhesions form afterwards, the tube is pulled upon by a band of adhesion, the lumen narrowed and in the course of a year tubal pregnancy has been known to occur.

Extrauterine gestation sometimes happens where there are no congenital defects, no previous salpingitis and no pelvic adhesions. Many cases occur in women who have borne a number of children, and it also occurs occasionally in unmarried ones. Pfaff<sup>3</sup> in a recent article speaks of inhibited peristalsis in a normal tube as causing tubal pregnancy and details a case in support of his view. He believes that the passage of the fecundated ovum to the uterus is due more to the peristaltic action of the involuntary muscular coats of the tube than to the influence of the cilia, and the insufficiency of muscular contraction fails to propel the product of conception to the uterus.

Vignard<sup>4</sup> in the Medical Review of Nantes says that the three symptoms sufficient to make a diagnosis of ectopic pregnancy are retarded menstruation, sharp, colicky pains all over the abdomen, particularly limited to the region of the tube affected, and small but persistent uterine hemorrhage accompanying or following the pain.

*Retarded Menstruation.*—While it is common for menstruation to be delayed until the sixth to tenth week or perhaps only a skip of a few days over the normal menstrual period occurs, and then with the onset of the cramp-like pains, a spotting show or scanty flow appears, and this be repeated at intervals lasting from one day to several days, some operators report cases that menstruated normally, a tentative diagnosis being made from the pain and the finding of a mass in the cul-de-sac or lateral to the uterus.

*Pain.*—Pain differs greatly in proportion to the extent of the lesion: in some cases being comparatively slight, in others one of the most pronounced and severe manifestations of the condition. If the ovum is aborted from the tube into the peritoneal cavity at the end of the second or third week, a little bleeding takes place, accompanied by colicky pains, which may not be very marked, and no symptoms follow, as the blood and ovum are gradually absorbed. When the pregnancy has advanced to the eighth to tenth week, which is the time when tubal abortion or rupture generally takes place, the pain is so acute and sharp that the patient frequently drops to

\* Read before the Association of Alumni of St. Mary's Hospital, December 8, 1903.

the ground and goes into a state of collapse, presenting all the well known symptoms of shock and hemorrhage, fainting, pallor, cold sweats, etc.

While two or three cases reported below show the extreme clinical signs of a ruptured ectopic pregnancy such a condition cannot be called anything but rare, judging from the reported experience of a majority of observers. In a discussion of this topic at the Kings County Medical Society last spring, Dr. Baldwin stated that he had seen but one such case, and that in a woman who had not been operated on at all and who got well. There was no doubt of the diagnosis, as colostrum could be squeezed from the breasts and a cast of the uterus composed of the *decidua vera* was subsequently expelled.

The character of the pain, according to some, is colicky or cramp-like, and by others it is described as being like a labor or abortion pain. On this point Dr. Baldwin at the same meeting said that he was accustomed to ask his patients who had borne a child if the pain was as severe as a labor pain; if it was the worst pain they ever had; and if they replied that it was not, he was inclined to doubt that it was an ectopic pregnancy.

*Uterine Hemorrhage.*—Nearly all observers call attention to the frequency with which ectopic gestation is mistaken for miscarriage and the woman curetted, and yet this liability to error is not generally known. Vineberg<sup>5</sup> speaks of a case he operated on for tubal pregnancy where this mistake had been made in one of the largest hospitals in New York. The error was discovered about a week later, but the patient refused further treatment and left the hospital. Two of the cases detailed below received such treatment. In the third case the patient reached the hospital in a state of collapse and no history of previous operative interference was obtained.

While the color of the blood in incomplete abortion is of a brighter red color than in ectopic gestation, where it is dark and tarry and thick in consistency, this sign aids but little in the diagnosis. Shreds of the *decidua vera* indicate pregnancy, but a search for them is not often made, nor when done are the shreds often found.

The following cases are taken from the records of St. Mary's Hospital as illustrating the mistake of diagnosing tubal pregnancy for a miscarriage:

CASE I.—Patient 35 years of age. Has had three children. Vaginal examination showed a mass on the right side. Admitted to hospital October 31, 1899.

About the middle of August, 1899, menses were delayed two weeks, when she was seized with cramps which lasted three hours. She then had a menstrual flow for one night and day. Second menstrual period following was prolonged several days beyond the normal. Complaints of pain in back and groin. Was curetted ten days ago.

November 1st, Operation: On opening abdominal cavity tube on right side was found considerably enlarged. It ruptured while being ligated and a large blood clot escaped into the peritoneal cavity, in which was found a gestation sac. The tube was ligated and removed. Normal salt solution was poured into the peritoneal cavity. Abdominal wound closed. Patient recovered and was discharged from the hospital November 28, 1899.

CASE II.—Patient 34 years of age, one child five years ago, one miscarriage seven years ago. Last menstruation June 27, 1900. Admitted to hospital August 31, 1900.

Present illness began August 24 with severe pain on left side extending to right and then becoming general. This was followed by a chill, fever and nausea. The pain lasted several hours. On August 28 patient had a chill and fever again. Has had a vaginal discharge blood tinged. Patient complains of abdominal pain and tenderness, most marked on left side.

Operation, September 1, 11 A.M. Uterus curetted and numerous pieces of decidual tissue removed. As the bleeding afterward was very profuse the uterus was packed with iodoform gauze.

2 P.M. Patient suddenly developed marked pallor, cold and clammy skin, rapid, feeble and irregular pulse, rapid and shallow breathing, marked thirst and restlessness, also abdominal pain. A saline and whiskey enema was given, also a hypodermic injection of 15 minims of Ergotole. Two hours later condition much improved. Uterine bleeding ceased.

5 P.M. The condition of the patient warranting it she was taken to the operating room and an abdominal section made. Numerous masses of clotted blood were found free in the peritoneal cavity. On the left side the tube was distended and bleeding. It was ligated and removed. The other tube was normal. After removing all clots and irrigating with normal saline solution the abdomen was closed. The patient recovered and was discharged October 3, 1900.

CASE III.—L. S., 36 years of age. Has had five children. On admission, October 15, 1900,



patient was in extremis, radial pulse imperceptible, face pallid, with cold, clammy perspiration, respirations superficial. The abdomen was distended, and there was dullness on percussion in the hypogastrium and flanks.

Operation one and a half hours after admission. Laparotomy. Left tube found thickened about  $\frac{3}{4}$  inch in diameter and ruptured. Abdomen full of clotted blood. After removing the blood and irrigating with salt solution a tear was found in the broad ligament on the left side near the posterior cul-de-sac. The tube was removed and the tear in the broad ligament brought together with silk ligatures. Salt solution was poured in the abdominal cavity and the wound was closed. Enteroclysis and hypodermoclysis under the breasts given.

October 16—Pulse perceptible but weak and rapid. Abdomen distended and tympanitic. During the night a sero-sanguinolent discharge poured out upon the dressings.

October 17—Discharge of blood and serum continuous and profuse. Patient brought to operating room and abdomen reopened. No bleeding anywhere. Another tear was found in the broad ligament, which was secured with silk. Patient died four hours later.

Thus we see that in at least two of these cases the diagnosis of complete abortion or miscarriage was probably made, from the fact that the uterus had been some time previously curetted. In one instance the curetting occurred in the hospital and intraperitoneal rupture of the tube followed three hours afterward. Fortunately for the patient she was where she could receive prompt surgical treatment.

A case reported by Grandin<sup>6</sup> is interesting from a diagnostic point of view, not only in this respect, but also as to the menstrual history. A young, unmarried woman was brought to his office for opinion as to a continuous hemorrhage from the uterus notwithstanding curettage for fungous endometritis performed three weeks previously. She gave a history of absolute menstrual regularity of a profuse type. There was no abdominal pain, nor any subjective symptoms of pregnancy. Examination disclosed a movable mass presenting in the right vaginal fornix. The abdomen was opened the next day and an unruptured tubal pregnancy found.

It is not surprising, therefore, that ectopic gestation should be mistaken so often for a miscarriage by the general practitioner. We all know how often surgeons have not suspected the true condition of affairs until the abdomen has

been opened. It is well known that not infrequently a pus tube or a twisted pedicle cyst cannot be differentiated from an ectopic gestation before operation by the most expert, as we may get the same symptoms of pain with very similar menstrual disturbances, but as an abdominal section is indicated in either of these conditions, the refinement in pre-operative diagnosis is not of very much importance. With a little care on the part of the physician and a knowledge of this liability to error, the mistake of treating an ectopic gestation for a miscarriage would very seldom occur. That the consequences to the patient from a ruptured tube with intraperitoneal hemorrhage excited by the interference of the curettage may be disastrous is quite apparent.

*Signs of Pregnancy.*—Boldt<sup>7</sup> reviewing his 258 cases says that the mammary changes in tubal pregnancy are almost as constant as in uterine pregnancy, and that he has seen only a few cases in which colostrum could not be squeezed from the breasts. Others speak of the breast changes as only being of value in primipara. The enlargement of the uterus with softening of the cervix is not always present. The size of the uterus varies in nullipara and multipara and in different individuals. In some cases reported the uterus is spoken of as being hard and not at all enlarged, and the diagnosis, if the true condition is suspected, is made from the other signs with the finding of a mass composed of blood clot peri-uterine, if tubal abortion or rupture has taken place, or an enlarged tube on either side, if unruptured.

Summarizing the symptoms we come to the conclusion, that while the three principal signs spoken of by Vignard are convincing when present, the exceptions are such as to render a diagnosis in some cases exceedingly difficult. In support of this statement it is only necessary to allude to the fact, that it is not infrequent for a probable diagnosis only of ectopic to be made before the abdomen is opened.

1. Herzog (Reed's Gynecology, p. 651).
2. Williams (Amer. Journal Med. Sciences, October, 1891).
3. Pfaff (Journal A. M. A., Nov. 7, 1903).
4. Vignard (Gaz. Med. de Nantes, January, 1903).
5. Vineberg (N. Y. Medical Record, March 14, 1903).
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## X-RAY THERAPY—ITS LIMITATIONS.\*

BY JOHN A. LEE, M.D.

Notwithstanding the attention the subject of X-ray therapy has received during the past two years, its true status has still to be established.

Rather than add to the already large literature of theory, the writer wishes to report from a not inconsiderable experience the result of his past two and one-half years' work with this agent, and to express some convictions he has gradually formulated during that time, also to illustrate with pertinent cases the phases of the subject which he feels have become quite definitely settled.

Many of the cases reported as failures were those treated in the earliest days of the work. Many cases were then treated which are now recognized as unsuitable.

## TREATMENT OF TUMORS.

For discussion we may divide these cases into two great classes, malignant and non-malignant.

*Non-malignant Tumors:* In the non-malignant class we have several groups of cases; the results of X-ray treatment of which are most satisfactory. The Naevi, Keloids and the Lupoid conditions.

In true keloids and hypertrophied scars the X-rays accomplish all desired. I have treated two cases of keloid, to one of which your attention is called on account of its typical history and position.

Mrs. F., age 40, some years ago noticed a small pimple or subaceous cyst on the chest wall above the sternum. This was incised and drained. It did not heal properly, and shortly after the patient had his hypertrophied scar excised. It returned larger than ever and was again excised. Upon a return of the keloid condition it was finally widely extirpated. But the tumor returned, and upon examination in the fall of 1900 presented a large circular mass projecting about a quarter of an inch from the chest and about one and one-half inches in diameter. There were claw-like projections from the periphery of the growth and the itching was intolerable. After about thirty treatments the growth and symptoms entirely disappeared, leaving a soft white scar, and has remained now entirely well for two years.

*Lupus:* During the past three years the writer has treated three cases of lupus vulgaris and one of lupus erythematosus. One case of lupus vulgaris was lost sight of when practically cured.

The case of lupus erythematosus, very extensive, after entirely clearing up, suddenly lighted up, and two years after treatment the patient is unimproved.

Two cases have remained well now for a year and a half. These were of the very worst type and had resisted all former methods of treatment at the hands of most competent men. One case that has remained well now for over a year presented an opportunity for comparison of the X-rays and the Finsen light.

This most stubborn case was a man 65 years of age. He had lupus for 23 years. Every treatment from caustic to extensive plastic operations was followed by rapid recurrences. For three months before coming under my care had Finsen light treatment daily of an hour to an hour and a quarter without any appreciable improvement. There was a deeply ulcerated ring about the nose extending into the inferior turbinated bones and a deep cavity in upper lip. All these parts bled easily, were exquisitely tender and painful. The man was discouraged and did not feel sanguine. I told him to let me give him 15 treatments, and if at the end of that time his progress was not satisfactory to discontinue. At the end of fifteen treatments he developed a rather severe dermatitis upon the subsidence of which he was practically cured, and has so remained. In naevi the writer has had no personal experience, but many men report good results.

*Localized Tubercular Inflammations:* The use of the X-rays in certain tubercular conditions has been tested sufficiently to show that in some cases very satisfactory results have been obtained, but I cannot speak from experience along these lines.

Recently I had a case of double tubercular testicles which seems to show some improvement after a few treatments. Senn, quite recently, reported a cure of spleen.

*Hodgkins' Disease:* In Hodgkins' disease there have been many authentic cures; although I have had no experience in these conditions they are brought up to widen discussion.

*Malignant Tumors:* Turning to the malignant diseases, I beg leave to read an extract from a paper read before the Brooklyn Medical Society in September, 1902, hitherto unpublished, "The X-Rays In the Treatment of Carcinomata." "This report may not present the subject in so rosy a hue as current articles seem to justify, but conviction has been forced upon me as experience has broadened. The X-rays have a circumscribed but well developed field in the treatment of new growths. Biased reports will prejudice

\* Read before the Brooklyn Pathological Society, December

the profession against a plan of treatment which, with all its limitations, has accomplished results utterly inconceivable a few years ago." And again: "In all operable cases, in the present state of our knowledge of the X-rays, surgery, prompt and efficient, should be the treatment of choice." The above was written at a time when many men in medical journals and societies were declaring the X-rays as a specific in all forms of cancerous growths.

The cases I have treated during the past two years, and upon which this paper is based, may be grouped as follows: The Epitheliomata and Carcinomata.

#### CARCINOMA.

In the carcinomata only one case that could by any means be considered operable was treated.

A scirrhus involving the gland and overlying skin—about the size of an orange—in a pale and anæmic woman about forty. Physical examination revealed no metastasis in axilla or lung. At first patient seemed to improve under treatment. Tumor diminished, and finally began to ulcerate and enucleate itself from the surrounding healthy gland. But, owing to an increased amount of toxins thrown upon the system, she began to suffer from nausea, vomiting, dizziness and vertigo, was compelled to retire to her bed and soon after died.

In that case I am not sure the X-ray did not hasten the inevitable.

*Inoperable Carcinoma:* Three cases of inoperable carcinomata of breast scirrhus died after from five to twenty treatments. These cases were hopeless from the beginning and were so recognized.

A case of inoperable carcinoma behind the ear involving ear and mastoid died four months after commencing treatment, from metastasis in brain, but not before the tumor had been markedly reduced in size. The pain was so diminished that she was able to dispense with the two daily grains of morphine that had been necessary for her existence, and her general health in every way improved.

Similar instances could be multiplied, but the outcome has been the same; the improvement only temporary. None of these cases recovered and they were not expected to, with the exception of the following case:

Mrs. W., age 63, was referred to me in March, 1902, with following history. About two years previously she had noticed a slight scaling and ulceration of the right nipple. This continued until the whole gland had ulcerated away, the ulceration extending along the chest wall until it

involved the other gland. Examination showed the above-mentioned condition with a hardened, infiltrated area surrounding the ulcerations, being in some places so far removed from it as three inches. The axillary portion was hardened, thickened and nodular. The arm from the shoulder to the hand enormously enlarged, edematous and infiltrated. Even the back had areas of diseased tissues. The lung showed areas of dullness and the entire skin presented the characteristic cachectic appearance of a general carcinomatosis. The other breast showed a beginning of a similar condition in the nipple and a hard tumor in the gland substance.

The treatment was intermittent on account of the mental and physical condition of the patient. To-day the woman still has cancer. But the ulceration has been practically healed and the cachexia improved. In fact, there are times when she seems almost free from it. The lung condition has not advanced, the infiltrated area has softened up, even on the back, and appears perfectly healthy. The arm has decreased in size, the infiltration has largely disappeared and the circulation improved. She is stronger now than she was two years ago. There are still some carcinomatous nodules present, and there is still a tumor in the other breast. The final result is inevitable, but it is to be regretted that she did not come under treatment a year previously, at which time the disease was absolutely inoperable.

Many cases were in the last stages of the disease, living only through liberal doses of morphine and showing evidences of systematic involvement. They were treated by the X-ray contrary to my advice and only to do something in order to satisfy the family. I would say, though, that in these cases where there was surface ulceration with the growth, the ulceration invariably healed and the surface growth improved.

*In Recurrent Cancer:* In the table of recurrent cancers poor results have been the rule. Cases of rapid and scattered metastasis were rapidly overcome. Acute cancers in the recurrent stage do not seem to be beneficially affected by X-rays. My cases have all died after the most temporary improvement. In mitigation there is this to be said, that all cases were referred by other men who had previously exhausted their patience and skill in treatment of these cases. There was no case in which I felt there could be much hope from the beginning with the exception of a case of my own, the history of which I will give because it exemplifies to my mind the only just way of judging the action of the rays on a recurrent breast cancer.



Katie M., age 27, occupation, housekeeper for her brother. Came from Flushing to consult me about a lump in her right breast, which she had noticed for about five months. Patient was fairly well nourished, but sallow and anaemic, and complained of weakness on exertion. Examination revealed a tumor about the size of an orange in the right breast, with a mass of glands low down in the axillary triangle. The case seemed especially favorable for operation because the tumor was freely movable and there did not appear to be any enlarged gland at the apex of the axilla. A radical operation was done, both pectorals being removed with the gland substance. The axilla, upon being exposed, showed not only the glands noticed by external examination, but carcinomatous tissue enclosing the sheath of the axillary artery and vein, and upon raising the pectoral muscle a few enlarged glands were noticed beneath the clavicle. Everything was cleaned away as well as possible, but owing to the artery and vein being involved in the growth it was necessary to leave some diseased tissue. Recovery was uneventful with the exception of a slight ulcer in the line of incision which did not heal. Within a month after leaving the hospital the arm began to swell, the ulcer increased in size and the supra-clavicular glands showed infection. A hard, infiltrated mass could be felt in the apex of the axilla.

Patient submitted to X-ray treatment. In a few treatments the ulcer healed, and after a number of treatments the glands in the neck and the infiltration in the axilla disappeared. I had not seen her for six months when I wrote her to come up to the office for an examination. She came last Friday and is feeling perfectly well in every way, better than for years. The arm is still slightly swollen, the axilla is clear and soft. The supra-clavicular glands that were enlarged have disappeared. There is no cough and no evidence of any lung involvement. She has had no treatment in over six months.

*Epithelioma:* When we consider the effect on epitheliomata our most sanguine hopes are realized and in this class success is as pronounced as failure was in carcinomata. I have treated twenty cases of skin cancer, comprising those of the face, lip, hand, and of the rodent ulcer type. Some were ulcerative, others of horny hardness, but recurrent and primary growths were included in the list and every case is alive and well. Some have remained for a year without the slightest tendency to recurrence.

The number of treatments required to effect

this result differed in different individuals and in different conditions, ranging from six to twenty-five. In no case was it necessary to establish a severe dermatitis. The treatment and cure were effected without pain or discomfort.

Even this list of cases is not reported as cured, but the advantages in treatment, results, and in the possibilities of handling recurrences, should they develop, over the previously accepted surgical procedure is obvious.

*Sarcoma:* There has been one opportunity for a study of the effect of the X-rays on sarcoma. While the result seems favorable it is too recent to report upon. Here the evidence seems conflicting. There have been some cases that have remained well a year after treatment, and many in which the treatment has failed.

#### SUMMARY.

An analysis of the foregoing cases and results with an observation on my own work and the work of others enables me to draw some deductions on the limitations of X-ray therapy, especially in cancer, as that condition is the one most important.

All epitheliomas, no matter of what type, will show a very high percentage of apparent cures. I believe, even in epithelioma of the cervix, we can, in some favorable cases, confidently expect a satisfactory result. The reason seems to be, to my mind, because these growths are on or adjacent to the skin surface, hence more easily acted upon; because of the slight tendency to metastasis and the generally well marked circumscribed area of the disease.

To my mind, in all epitheliomatous conditions it will be the treatment of choice and will be the means of saving many cases. In all operable cancers, surgery should still be the treatment adopted. Not because the surgical result is always satisfactory, but the X-rays may be positively dangerous, since in the breaking down of the tumor, many undestroyed cancer cells may be carried by the lymph channels to other parts of the body, especially to the glands, developing oftentimes a metastasis where none previously existed. This is especially true in large breast cancers.

In small breast scirrhus, when for any reason surgical operation is contraindicated, I believe X-ray treatment might be instituted with favorable expectations. On the other hand, in all large cancers the more removed by the knife and the less disease left to combat with the X-ray the more successful will be the outcome.

It is in just this class of cases, operable cases



with post-operative treatment, that there is a large field for future investigation.

It is questionable whether all cases should not be submitted to the influence of the rays directly after operation and before the liver becomes studded with nodular growths. It might be argued that, in these cases, we could not refer successful results to the benefit of the rays. That, in part, is true, but we now know what the general outcome is without X-ray treatment.

In the class of recurrent cancers, suitable cases, properly treated, will not show the unsatisfactory results which I have been forced to detail. While my preference has been given to surgery in primary growths, it has always been my belief that there has always been too much surgery in recurrences, surgery which I do not believe has even the doubtful advantage of prolonging life.

Recurrences along the scar, either ulcerative or of the type known as "*en curiasse*," are favorable for X-ray treatment and will give satisfactory results. Hardened, pea-like glands in the supra-clavicular region will readily submit to X-ray influence. Large masses of glands in any position are less favorable because systemic involvement is generally very rapid. The time to treat a recurrence is when a recurrence is recognized, and no time should be lost, for, even then, it may be too late. Patients operated upon for cancer should have a monthly examination, at least, for the first year, and this necessity should be impressed upon them.

When a patient begins to show involvement, either in liver or lung, I do not believe it worth while to institute a course of treatment.

Rapid recurrences in tumor growths should not be treated. In these cases the disease is virulent, metastasis positive and uncontrollable.

In inoperable carcinomas there must likewise be a large percentage of failures, but it is here that we can also obtain our most brilliant results. Many of these extensive ulcerative growths, formerly hopeless, will be saved.

Exceedingly vascular tumors or cases with a short history, rapidly progressing, are improper for treatment.

It may be stated as an axiom in X-ray therapy: The more acute the disease, the more hopeless it is; the more chronic the condition, the greater is the possibility of cure.

I believe the X-ray cannot prevent or affect a metastasis, and as a palliative measure should be employed only in the presence of pain. It is better than morphine and has none of morphine's disadvantages.

## RECENT ACQUISITIONS TO THE LIBRARY OF THE MEDICAL SOCIETY OF THE COUNTY OF KINGS.

BY JAMES M. WINFIELD, M.D.,

Directing Librarian of the Medical Society of the County of Kings.

PRESENTATION OF THE LIBRARY, APRIL, 1903.

*Mr. President and Members*—The following letter was received a few days ago, and with your permission I will read it as an introduction to the presentation of the valuable library of the late Dr. Joseph Jones, of New Orleans.

BROOKLYN, N. Y., April 8, 1903.

J. M. WINFIELD, M.D., Directing Librarian.

MY DEAR DOCTOR: Allow me through you to present to the Library the collection of medical works of the late Dr. Joseph Jones, of New Orleans, or so many of them as the Library may need. There are some fourteen hundred odd volumes, as listed. They are contained in the fourteen cases and one package now in the Medical Building, and will consequently be immediately available.

These works have been purchased on the advice of yourself and Mr. Huntington, as they include many selections of value that are rarely or never to be found in the market, besides files that we lack.

Trusting that they may be prized and protected, I am,

Yours very truly,

WILLIAM BROWNING.

As intimated in the above letter the purchase of this library was advised, because of the extreme value of many of the books and many of the journals completed our files. The Doctor states that according to the list there are about fourteen hundred volumes; we find, however, that there are about seventeen hundred. It is impossible to give a complete list of all of the rare and valuable books contained in the collection, but there are a few that should be mentioned, for instance, all of the more important works upon small-pox written during the Jenner period, also complete sets of Southern medical journals; these are more than difficult to procure. Most of the books are well bound and in good condition. This, gentlemen, is briefly a description of the gift which has come to us through the unselfish and unostentatious liberality of Dr. Browning, who, without exception, has done more towards the upbuilding of our Library than any other member of the Medical Society.

Although there are a number of biographies of Dr. Joseph Jones, it seems proper that a brief account of the life of this prominent Southern physician should be given in this connection.

Dr. Jones was born in Georgia Sept. 6, 1833. His ancestors were prominent in the wars of the Revolution and 1812. The Doctor was educated by private tutors; later he attended the University of South Carolina and received his A.M. from Princeton in 1853. He was graduated in medicine from the University of Pennsylvania in 1855. In 1892 the University of Georgia conferred the degree of LL.D upon him. Shortly after graduating in medicine he began the practice of his profession in Savannah, Georgia, and in the same year was elected Professor of Chemistry in the Savannah Medical College, which position he retained until 1858, when he was chosen Professor of Natural Philosophy in the University of Georgia. A year later he was elected to the Chair of Chemistry in the Medical College of Georgia. At the outbreak of the War of the Rebellion, Dr. Jones joined the army from his native State (Georgia), and all but six months served throughout the war as surgeon, with the rank of Major.

During the war he made an investigation of the condition of the prisoners at Andersonville. The report was afterward published by the U. S. Government and the Sanitary Commission.

At the close of the war he removed to New Orleans, Louisiana. In 1868 he was elected to the Chair of Chemistry and Clinical Medicine in the University of Louisiana. In 1880 he became President of the Board of Health of Louisiana. In this capacity he became prominent through the victory he obtained in excluding foreign pestilence from the Mississippi Valley. Dr. Jones was a prolific writer and contributor to medical journals. He was a member of a number of medical societies, both local and national.

Dr. Jones was twice married. His first wife was a Miss Davis, who died in 1868. His second wife, who survives him, was Susan Polk, a daughter of the Rev. Leonidas Polk, Bishop of Louisiana (generally known during the Civil War as the "Fighting Bishop of the Confederacy"), and a near relative to President James K. Polk. Dr. Jones died in 1895.

Dr. Luzerne Coville's paper on the typhoid epidemic at Ithaca, N. Y., read at the second semi-annual meeting of the New York State Society, N. Y., has appeared in *American Medicine*, Jan. 9, 1904.

PRESENTATION OF THE LIBRARY OF THE PHYSICIANS OF THE GERMAN HOSPITAL AND DISPENSARY TO THE MEDICAL SOCIETY OF THE COUNTY OF KINGS, NOVEMBER

17, 1903.

BY JAMES M. WINFIELD, M.D.

*Mr. President and Fellow Members of the Medical Society of the County of Kings:*

This occasion will always remain a red-letter day in my memory, for, as your Directing Librarian, I have this evening the privilege of presenting to the Medical Society of the County of Kings one of the greatest gifts that it has ever been the good fortune of this or any other medical library to receive.

Owing to the generous response to a call for funds, we have been able to secure a collection of books which places ours in the foremost ranks as a medical reference library.

About eighteen months ago I learned that the Library of the Physicians to the German Hospital and Dispensary of New York City was to be disposed of. Immediate steps were taken to secure it for our Library, although at first it seemed that the prize was beyond our reach because of its great monetary value. After a year of hard work, seconded by the able efforts of our friends (especially of my friend and colleague, Dr. Hermann G. Klotz, of New York City), on May 31, 1903, we obtained the refusal of the books at \$3,000 until July 15, 1903. In granting our request for the refusal of the collection at this price, Dr. Klotz, their Librarian, wrote: "In waiving the claims for a greater compensation, which would have been justified by the value of the Library, the Committee has been prompted by the desire to dispose of the books in such a way that they will continue to be of great benefit to our profession and at the same time to confer a favor on a Society composed of our professional brethren."

Then the question of raising the required amount confronted us and a careful canvass was immediately begun among our members with the inspiring result that in less than three weeks a sufficient amount had been pledged so that our Board of Trustees were able to make a deposit of \$1,000 and felt warranted in giving a three months' note for the balance.

In raising this \$3,000 it was originally planned to secure thirty pledges of \$100 each. Many who were solicited promised smaller amounts, but the original plan was found to be entirely feasible and was carried through. Remembering how greatly the medical profession of Kings County



had been taxed for the building fund, the fair, and again last year for the completing of our stack-room, an appeal was made to three members of the laity, who once more have generously contributed to our needs. In this connection I wish to thank Dr. George McNaughton and Dr. Benjamin Ayres, through whom the largest two contributions were secured.

The list of contributors is as follows:

Mr. Abraham Abraham, through Dr. Mc-	
Naughton .....	\$500
Mr. Frank S. Jones, through Dr. Ayres...	300
Mr. Clarence W. Seamans.....	100
Brooklyn Surgical Society.....	100
Brooklyn Gynecological Society.....	100

and \$100 apiece from each of the following members of our Society: Dr. Hermann P. Bender, Dr. William C. Braislin, Dr. Algernon T. Britow, Dr. Glentworth R. Butler, Dr. H. Beeckman Delatour, Dr. Robert L. Dickinson, Dr. Matthias Figueira, Dr. George R. Fowler, Dr. Thomas R. French, Dr. Joseph H. Hunt, Dr. Charles Jewett, Dr. John A. McCorkle, Dr. George McNaughton, Dr. Lewis S. Pilcher, Dr. John E. Sheppard, Dr. Joshua M. Van Cott, Dr. Frank E. West, Dr. James M. Winfield and Dr. Frederick W. Wunderlich, making a total of \$3,000.

The market value of the books is somewhere between eight and ten thousand dollars, and the collection numbers nearly 7,000 volumes, consisting of complete files of English and foreign periodicals, including every branch of medicine, valuable hospital reports and society transactions, and a few encyclopedias and text-books. It would consume too much of your time for me to mention the titles of all these journals, and a few will suffice to demonstrate the great value of this library which we have acquired. There are complete files of the

Berliner klinische Wochenschrift.  
 Deutsche medicinische Wochenschrift.  
 St. Petersburger medicinische Wochenschrift.  
 Prager medicinische Wochenschrift.  
 Wiener medicinische Wochenschrift.  
 Archiv für mikroskopische Anatomie.  
 Archiv für Anatomie und Physiologie.  
 Archiv für Gynaekologie.  
 Archiv für Dermatologie und Syphilis.  
 Archiv für Ohrenheilkunde.  
 Archiv für Ophthalmologie.  
 Archiv für klinische Chirurgie.  
 Virchow's Archiv.

And so on through hundreds of sets of the leading periodicals in German, French and English—periodicals devoted to each specialty as well as

to general medicine. Nearly all of the books are handsomely and substantially bound.

This, gentlemen, is the rich gift which has been secured to you through the generosity of three laymen, nineteen of your colleagues and two affiliated societies.

In closing, I ask the privilege of publicly thanking my medical friends, whom I visited, for their courteous reception and warm response to a request to open their purses. In spite of the many calls on our profession for charity, I found that every one, without exception, was ready to do his share and deemed it an honored privilege to contribute to the welfare and aid in the upbuilding of our great Library. It seems to me that the value of the collection is increased a thousand fold by this spirit of hearty generosity and good will.

Fellow members, this magnificent collection of books is now presented to you by the donors, and as your Directing Librarian I extend to you my heartiest congratulations.

## PROCEEDINGS OF SOCIETIES.

### FIRST ANNUAL REPORT MEDICAL LIBRARY ASSOCIATION OF BROOKLYN.

Early last year some sixty members of the Medical Society of the County of Kings, having at heart the growth of the Library of our County Society and realizing that organized assistance is of more material value than capricious contributions, determined to associate themselves to do what they might to help the good work. In March, 1903, the first meeting was held and the Medical Library Association of Brooklyn was established. Officers were elected and rules for government were adopted. An annual due of \$10 was agreed upon. The object of the Association is simply auxiliary. It stands ready to help the officers of the County Society to meet the constantly recurring needs of our Library, and the hope is to gradually establish a permanent library endowment fund, so we may be in a position to purchase desirable available libraries or collections of medical works, original works of investigation, *et cetera*.

A substantial beginning has been made. A majority of the members qualified by payment of their dues.

With a more general appreciation of the object of the Association, membership will undoubtedly increase and *pari passu* the ability for usefulness. During the few months of its existence the



Association, on the advice of its Executive Committee, has paid to the Librarian of the County Society \$250. A portion of this was for the much needed binding of journals. Twenty volumes of *La Cellule* were furnished, and the following journals subscribed for:

JOURNALS SUBSCRIBED FOR BY THE BROOKLYN MEDICAL LIBRARY ASSOCIATION.

Archiv f. Anatomie u. Physiologie.  
 Archiv f. Dermatologie u. Syphilis.  
 Archiv f. mikroskopische Anatomie.  
 Centralblatt f. d. med. Wissenschaften.  
 Correspondenz-Blatt f. d. Schweizer Aerzte.  
 Fortschritte der Medicin.  
 Monatshefte f. prakt. Dermatologie.  
 Sammlung klinische Vortraege.  
 Therapeutische Monatshefte.  
 Zeitschrift f. klinische Medicin.  
 Annales de Dermatologie et Syphiligraphie.  
 Archives Générales de Médecine.  
 Gazette des Hôpitaux.  
 La Semaine Médicale.  
 Journal of Physiology (London).

Surely this is a commendable showing for so short a time. Steadfastness of purpose and worthiness of object are full of promise for the future.

Respectfully submitted,

ALBERT M. JUDD,  
 Secretary.

MEDICAL SOCIETY OF THE COUNTY OF KINGS.

At the 83d Annual Meeting of the Medical Society of the County of Kings, January 19, 1904, the following were elected:

President, John E. Sheppard, M.D. Vice-President, James W. Fleming, M.D. Secretary, William S. Hubbard, M.D. Associate Secretary, William C. Woolsey, M.D. Treasurer, Onslow A. Gordon, M.D. Associate Treasurer, John R. Stivers, M.D. Directing Librarian, James M. Winfield, M.D. Censors, Walter C. Wood, M.D., William F. Campbell, M.D., Henry G. Webster, M.D., William F. Dudley, M.D., James Peter Warbasse, M.D. Trustee, Charles N. Cox, M.D. Delegates to the Medical Society of the State of New York, Drs. C. E. Lack, P. F. Pyburn, W. H. Maddren, G. L. Buist, W. V. Pascual, J. J. Wagner, R. T. Wheeler, P. H. Moak, G. E. Deely, J. E. Jennings, C. W. Stickle, A. E. Shipley, C. Duncan, J. T. Gallagher, H. C. Keenan, J. P. Murphy, P. M. Pilcher, W. C. Woolsey, C. E. Scofield, P. Townsend, E. J. Morris, C. R. Love, D. E. Hoag, H. W. Lincoln.

W. S. HUBBARD, Secretary.

THE BROOKLYN GYNECOLOGICAL SOCIETY.

OCTOBER, 1903 (CONCLUDED).

REPORT OF CASE: CHILD BORN WITH FIVE TURNS OF THE CORD AROUND THE NECK.

DR. W. MADDREN: I attended a case yesterday morning which illustrates the number of times a cord may be around a baby's neck. It was five times completely around the child's neck. It did not affect the delivery at all. It was a normal delivery and the condition of the child was good, but, of course, the cord was very long. There seemed to be no suffocation symptoms, as far as the child was concerned, or special traction on the cord. It was a normal delivery. I would like to know if any of the gentlemen have had an experience of the same kind.

DR. R. L. DICKINSON: I have a drawing of a ridiculous looking child. It behaved for some time after birth as if it had a high collar on. It had four turns around the neck, but no injury



FIG. 1. Elongated neck of child after delivery, due to four turns (26 inches) of cord about the neck.

resulted because the second stage was expedited. Here the utility of my plan was demonstrated, whereby examination for cord about



FIG. 2. Wrinkled condition of neck thirty minutes after delivery.

the neck in the second stage is part of my routine. Twenty-six inches of this cord was coiled about the neck, but as the whole cord was forty-two (42) inches long labor was not arrested, nor was the tension dangerous.

# THE BROOKLYN GYNECOLOGICAL SOCIETY.

STATED MEETING, DECEMBER 4, 1903.

The Vice-President, W. J. CORCORAN, M.D., in the Chair.

## REPORT OF THREE CASES OF PREGNANCY COMPLICATED WITH OVARIAN CYSTS.

DR. R. L. DICKINSON.

### DISCUSSION.

DR. A. E. GALLANT: This case came under my notice last July in a summer hotel, and I think that comparison of what I then found with the drawings of Dr. Dickinson will show that the best time to make a diagnosis is after you have operated—in abdominal work at least.

The patient called me on account of a slight bloody discharge which she had noticed for a day or two, and knowing herself to be pregnant, three months as she supposed, was worried by the discharge, fearing miscarriage. She suffered some pain, chiefly in the back, but unlike labor pains; and by packing the vagina with sterile gauze and keeping her quiet for five days the flow stopped. She had told her husband of the strange shape of her stomach and suggested that the next would be twins, and from inspection I thought it very likely, as it presented the appearance of a bicornate uterus rising on both sides half way to the umbilicus, with a deep sulcus uniting the two portions.

At that time the cervix was felt high up on the right side of the pelvis; foetal movements and placental bruit on the left; estimated term five months; tumor suspected on the right side.

Three weeks later (Aug. 16th, 1903) I again made an examination, and noted quite a remarkable change. On the left side the foetus was lying well up against the ribs, apparently freely movable in the abdominal cavity, the placenta in the left iliac fossa; the tumor on the right side was about two inches below the umbilicus, having enlarged but little if at all since last examination, and gave the impression of an hypertrophied uterus. This was strengthened by the length and direction of the cervix, which was directed from left to right as if connected with the mass on the right side of the pelvis. I looked upon the condition as one of abdominal pregnancy on the left side; with a sympathetically hypertrophied uterus on the right; and ad-

vised the husband to at once seek expert counsel, believing that immediate interference would be the best course to pursue.

DR. W. B. CHASE: This last case presented is one of a great deal of interest, and it is perfectly easy to appreciate the embarrassment in making a correct diagnosis. The inferences were certainly in the line of the deductions made by Dr. Gallant.

Regarding the other two cases, and my experience runs in the same lines, I recall a case which I saw twelve or fifteen years ago in consultation with a physician of this city. He sent for me during a labor; I found a woman in middle life, with a very large abdomen, delivered of a baby, and the doctor was uncertain as to whether it was not a twin pregnancy. After making an examination I was able to demonstrate to my satisfaction that it was not a twin pregnancy, but that there was a large cyst, as large or larger than a foetus of full term.

DR. R. H. POMEROY: The only matter that I did not hear Dr. Dickinson refer to very definitely was as to the necessity of doing a hysterectomy on this case. I was present at the operation, and personally I think there is no question as to the advisability of doing a hysterectomy rather than a myomectomy.

It is also easy to comment on the fact that this case would probably have made a satisfactory recovery without operation at this time; but in view of the impossibility of making a positive diagnosis, the operation seemed decidedly in order, taking into consideration the rise in temperature and the apparent evidences of inflammatory or other changes in the neoplasm. I think Dr. Dickinson also omitted to mention that there was a decided enlargement of the mass within the previous twenty-four hours. These were the indications for the operation done as and when it was.

If the diagnosis could have been made as to the exact condition, this patient probably would have recovered without immediate operation, and a myomectomy might have been done later. At this time it was certainly safer to do a complete hysterectomy.

DR. C. JEWETT: I did not hear the report of the case, but I infer from what I have heard of the discussion that the question of diagnosis as between myoma and pregnancy has been raised. I may refer to one diagnostic point which I have found of value at operation.

After the abdomen is opened the distinction between myoma and pregnancy may as a rule



easily be made out. Putting the fingers of the one hand down within the peritoneal cavity behind the uterus and of the other in front, Hegar's sign may usually be made out very satisfactorily. This, however, may fail where there are growths at the region of the isthmus. In two or three cases I have in this manner made the diagnosis before the class, where without this sign the question would be doubtful, confirming the diagnosis after operation by opening the uterus.

A case in which both myomata and pregnancy are present may be very difficult to make out even when the abdomen is opened.

DR. W. B. CHASE: I would like to ask Dr. Pomeroy if he would recommend a myomectomy in a case like this, in which the attachment of the neoplasm to the uterus was of such an extent?

DR. R. H. POMEROY: Not under the present circumstances, but if that were a non-pregnant uterus I do not think there would be any great risk. It certainly would not be more of an operation than a Cæsarean section, in which the uterus is laid open to the endometrium.

DR. A. E. GALLANT: I should say that, looking backward, yes. The advice that I gave to the husband was to consult some one else and get some one else's opinion, with a view to operating at that time. In view of what we know now of the case, it would have been an easy matter at that time and at that stage of pregnancy to remove this fibroid with safety to the mother, and I believe with safety to the child. I doubt very much if cutting off and removing that fibroid at that time would have interfered with the pregnancy, at least since we know from the records that so many have been done. From my standpoint I felt if it was my case I should certainly have operated and done what I thought was necessary at the time. I do not like to take the risk of letting an intra-abdominal pregnancy go on to term.

DR. R. L. DICKINSON: The unusualness of the condition, of a nearly complete turn in the uterus, its back facing the front, so complicated the diagnosis, that, like Dr. Gallant, I did not feel very much put out concerning that mistake. As I look back on it I can see one or two things that might have been done if a correct diagnosis had been made. Whereas we took the utmost care to handle that tumor as little as possible, for fear it was an ovarian cyst whose pedicle we might twist or undo, which we feared might produce a hemorrhage, had we known it was a fibroid and located on the front of the uterus, we would have swung it around to the front and untwisted the

cervix, and possibly have been able to deliver it with more facility, though it was so large that even that is doubtful.

Also had we known that the condition was such that a hysterectomy might have been inevitable, we would have preferred to do a Cæsarean section, and saved our child at the same time we took the uterus out. Under the circumstances we worked primarily, of course, for the good of the mother, and were content to leave that condition to take care of itself, if it would take care of itself until the mother was in safe condition to operate on.

Whether that sudden temperature rise on that afternoon indicated general sepsis threatening, or was due to some change in the tumor itself, I do not know, but at any rate it was a very strong indication that something positive must be done. You see that the lining of the uterus is clean and presents no macroscopic evidences of sepsis. Therefore, it is presumed that something not connected with the tumor had to do with her temperature rise.

DR. W. J. CORCORAN: I would like to ask Dr. Dickinson, presuming the diagnosis had been accurately made and the conditions understood, what would be the time of election for operation there?

DR. R. L. DICKINSON: If seen late we would have chosen to try to deliver the patient, and let the fibroid shrink afterward, because the sulcus between the uterus and the fibroid showed it was a subperitoneal fibroid, and, therefore, not likely to be infected during the labor and not likely to give us trouble, and then at some future time, when it had shrunken to its utmost, we could have removed it by myomectomy, leaving the uterus itself.

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PAPER: THE X-RAY IN GYNECOLOGICAL PRACTICE.

BY LUCY HALL-BROWN, M.D.

*Discussion.*

DR. J. A. LEE: The subject of the treatment of uterine cancer by use of the X-rays is a subject which, at the present time, is in a primitive stage. The trouble with most people who have not been doing X-ray work is, that they expect too much. In cases that show a tendency to rapid recurrence and rapid primary cancer, my experience has been that you do not control with the X-rays. The more chronic your cancerous condition is, the more liable you will be to produce at least a tentative cure, and my idea is, that it is quite possible to



produce at least a certain amount of successful palliation in the treatment of uterine cancer.

I have had only one case which I treated for a considerable time. The case afterward went from my observation, but I have recently found that the case died. The case at that time was one which speaks very highly for the successful results which sometimes follow palliative treatment of cancer of the uterus. This patient was operated on ten years before by Dr. Bull of New York, and I think the cancer at that time was rather extensive. I believe nothing but a palliative operation was done—something like Dr. Byrne's cautery and dome operation. For a number of years there was absolutely no recurrence. The lady enjoyed perfect health. After seven or eight years a recurrence developed. She was examined by Dr. Bull and several others, and they absolutely refused to do anything at all. At this time she was having pain, hemorrhage and foul smelling discharge. After a number of treatments the pain, hemorrhage and discharge ceased almost completely; the patient improved very markedly. About this time she passed from my observation, but she was taken up by another X-ray man, and he kept her alive for a year.

That brings up a point mentioned by Dr. Hall-Brown about these hopeless cases, which will clear up and improve under X-ray treatment. As soon as they get beyond the X-ray environment, as Dr. Brown says, they will degenerate. I have noticed that on many occasions in breast cancers. For instance, an ulcerated tumor of the breast will be almost entirely cleared up, and then, after the X-ray thoroughly eradicates the growth, if you allow the case to go on without treatment, there will be a tendency for the condition to return, and that in my opinion is why in X-ray work, in uterine cancer, we cannot expect to get a perfect cure.

I never have believed that the X-ray is a panacea for all forms of cancer, with the exception of the epitheliomata. Of course, epitheliomas of the cervix are practically in line with epitheliomas of the face. Oftentimes they will proceed almost as slowly, but unfortunately most of them do not. I think in cases thus far advanced, where undoubtedly very successful results have been obtained, they could be kept in good condition for a longer period, if the patient kept continuously under X-ray influences.

Then, again, I fail to remember whether Dr. Hall-Brown brought out the fact that there is a possibility of increasing the metastases by X-ray work. The X-ray has got to be given, not only

for the proper length of time, but in the proper quantity. With either too little or too much you are liable to cause trouble.

DR. R. L. DICKINSON: How often in a late case of breast cancer, for instance, would Dr. Lee advocate the use of the X-rays?

DR. J. A. LEE: I would keep a breast cancer under continued observation, seeing it at least once a week after it is healed.

DR. G. L. BUIST: A case of carcinoma uteri that was operated on by Dr. Cleveland, of New York, three years ago has for the past six months been receiving X-ray treatment at the Brooklyn Hospital. When first consulted the doctor declined to operate owing to the extensive involvement caused by the growth. Finally, at the urgent request of the family, he performed an abdominal hysterectomy. The growth recurred in a year and a half. X-ray treatment was then instituted. For the past six months the exposures have been from ten to fifteen minutes, three times a week, once *per vagina* and twice over the abdomen.

I feel positive that the growth has not increased at all, but on the other hand I do not feel that there has been any marked diminution in the induration.

The patient has certainly been more comfortable and, for the most part, free from pain.

The sero-sanguinous discharge from the vagina ceased after four weeks of treatment, but is now beginning again. I do not think that this is a case that is going to be cured, but I feel confident that under the treatment the patient has experienced great relief, and probably a temporary restriction to the rapid extension of the growth.

At a symposium on the X-ray recently held in New York the consensus of conservative opinion then expressed was that at the present time we are not justified in claiming a cure for carcinoma uteri, or in fact a cure for any deep-seated cases of cancer. Most observers grant that some cases were undoubtedly helped by the treatment, but that in the light of our present experience we must use the X-ray as a palliative measure in deep-seated, malignant growths and as a prophylactic measure in post-operative cases of the same nature.

DR. C. JEWETT: I have had no personal experience whatever with radio-therapy. My very limited knowledge of the matter is confined to what I have gathered from a few snatches from the literature and from some personal observation.

I had supposed that the X-ray treatment is of value in cancer, for curative purposes at least, only in superficial epitheliomas, and in post-operative treatment of carcinoma, and also useful as a palliative in inoperable cases.

It occurs to me there is one danger in this method of treatment and that is that patients in the early stages of carcinoma may be induced through the natural dread of surgical measures to trust to this treatment, and thus lose the golden opportunity. I certainly would not advise a patient to accept it in operable cancer in lieu of the knife. All the benefit possible by radio-therapy can be had after the growth has been extirpated.

This opinion is emphasized somewhat by a case of mammary cancer which fell under my observation recently. About a year ago and early in the disease one of the busiest surgeons in New York had, for some unknown reason, elected to trust the case to X-ray treatment instead of amputating. The patient was very much elated at the apparent good results after a few weeks of treatment, but died about a week ago.

DR. W. B. CHASE: The question of the palliative treatment of cancer of the uterus is certainly a most interesting one to us all, and in view of the fact that the results of radical measures instituted at comparatively early stages in the development of this disease have been so unsatisfactory, and so few cases relatively have been cured, I think it puts upon us the greater necessity of doing what we can in a palliative way.

I have frequently expressed my feeling regarding the accomplishment of Dr. Byrne and the value he attached, in his large experience, to the use of the thermo-cautery. I have been impressed with the belief that while I would not advocate the use of the thermo-cautery or of the X-ray apparatus, or the application of caustics, or radium, over and against radical treatment, when a case was seen early, yet when we find cases that have passed beyond the operative stage, or any case where operative interference is refused, or in post-operative cases which have relapsed, I think among the things which may be used is the X-ray. I have reported my experience in the palliative treatment in a paper read not long ago, which appears in the December number of the *Brooklyn Medical Journal*. Certainly I am impressed in a not large observation I have had in the use of the X-ray, that it has some power in modifying the local conditions. It certainly causes a decrease in pain and a pretty rapid breaking down of the superficial tissue.

I think, as one of the gentlemen remarked, we

are in the experimental stage, and do not know yet what can be done by these newer palliative measures.

DR. F. J. SHOOP: I was glad to hear Dr. Hall-Brown say that the best results were obtained from X-ray treatment in post-operative cases, or where operation had been performed shortly after beginning the ray, and then continuing the ray as soon as permissible afterward. In literature there is quite divided opinion on this point, some claiming to get best results where no operation has been done, and others where the mass has been removed, before raying. It is, in my judgment, wise to first remove the cancer mass, if possible, because if we attempt to have the whole of a large mass absorbed, toxemia is sure to follow, and I think this Society should put itself on record as being in favor of operation first, then of using the ray to kill outlying foci whether on the face, breast, uterus or cervix. In so doing the Society will overcome a tendency to waste valuable time in those early self-evident operable cases of which Dr. Jewett spoke.

Dr. Hall-Brown spoke of the use of radium of the 3,000 strength, using it from one-half to one hour. How long would she use the 7,000 strength?

DR. L. G. BALDWIN: I am glad to hear that the author of the paper takes so favorable a view of the treatment of cancer with the X-ray.

My personal experience has been confined to five or six cases, and I regret exceedingly to say that in not one of them have there been any favorable results. Some of them have been cases which have been under my personal care from the beginning, and some I have seen in consultation.

The first that I can speak of was a recurrent case of carcinoma of the uterus, which had everything done that surgical means could do, and was then placed under the care of an experienced electro-therapeutist for the X-ray. The pain was not relieved and the disease progressed, and she now has a vesico-vaginal and a recto-vaginal fistula.

The next case is the only one in which I attempted to supervise the treatment, that is, had it down at the hospital under my own observation. This patient was one that came to us when the disease had passed the operative point, the vagina being involved nearly to the introitus. In that instance the pain was somewhat relieved, but the hemorrhage was not, and she died in a short time, rather shorter than such cases usually do.



The next case is one of recurrence where I had done a hysterectomy. She was placed under the care of an experienced X-ray man. After a few weeks' treatment she was confined to bed and died a few months later.

Another one, which is only very recent, in the matter of a fibroid about the size of this one shown by Dr. Dickinson to-night—possibly a little larger—had been treated by an ardent advocate of the X-ray. The hemorrhages had stopped and the case was pronounced cured, but she unfortunately did not remain cured. A hysterectomy was done for her last week, and it was found to be a badly degenerated fibroid, as far from being cured as could possibly be. I feel that it is positively a crime in operable cases to submit them to the X-ray and tell them at the end of a few weeks they are cured. Let us have the account at the end of six months or five years, and let us see what becomes of them.

Another case of superficial cancer of the labia, which had very extensive treatment with the X-ray, came to me, and I advised the removal of the labia. Dr. Sherwell told me to-day that he cured the case with acid nitrate of mercury.

DR. LUCY HALL-BROWN: I have had no experience with carcinoma of the gall bladder. All the cases of uterine carcinoma which I have observed under X-ray treatment have been entirely relieved of pain. Every self-styled operator of X-ray is not an expert. I have seen X-ray treatments, so called, where there was practically no penetration of the rays whatever and the practitioner honestly thought he was giving efficient X-ray treatments.

Just as a few years ago there were many dissenting opinions upon the value of electricity as a therapeutic measure; so now with the X-ray. It is on trial.

In inoperable cases of cancer—cases in which the whole system is saturated with the poison of cancer—any therapeutic measure which promises even a mitigation of miseries to the patient should be employed. Thus far nothing has so relieved the horrors of the situation as the X-ray.

My dictum would be: "Always operate when the case is operable. If the patient will not consent then lose no time, use the X-ray at once." Patients afflicted with cancer are prone to fatal delays.

I have never seen a hopeful case of uterine cancer treated by the X-ray. All have been of a desperate character.

There is a great future for the X-ray. Its use in cancer will tell its own story in time, and it will be a favorable one.

## THE BROOKLYN SURGICAL SOCIETY.

REGULAR MEETING, NOVEMBER 5, 1903.

The President, W. F. CAMPBELL, M.D., in the Chair.

### OBLIQUE FRACTURE OF HEAD OF TIBIA INVOLVING KNEE-JOINT, WITH ANTERIOR DISPLACEMENT OF LOWER END OF FEMUR.

DR. J. P. WARBASSE presented a man 54 years of age, who, in the middle of April last, sustained an injury to the knee-joint, the correct nature of which evidently was not determined, and he was under treatment for a number of weeks for synovitis before seen by the speaker. When first seen in June the speaker discovered this condition: There was an oblique fracture of the tibia beginning just below the tubercle and running upwards and backwards into the knee-joint. This wedge supported the femur. There was non-union, so that when the weight of the body was thrown upon the injured leg this fragment slid downward and forward, and the lower extremity of the femur rode downward and forward.

When the man stood on his injured leg there was an evident relaxation of the ligaments of the knee-joint and anterior displacement of the lower end of the femur to such a degree that the back of the tibia could be felt behind the joint.

The speaker had a lateral X-ray picture made, and discovered what he had surmised to be the condition. The patient was sent to the German Hospital. The fracture was exposed by a curved incision, the convexity being downward. The incision was carried so as to expose the fracture. Immediately upon exposing the line of fracture synovial fluid from the joint came to view. There was exposed a false joint, lubricated by synovial fluid from the knee-joint. The upper fragment was lifted up forcibly by retractors, the fibrous deposit on the bone surfaces was removed until bony surface was exposed all the way up to the joint. The fragment was then sewed fast to the upper end of the tibia by chromic sutures and the wound closed. In doing this the operation naturally sacrificed some of the original length of the bone; and, as a result, the natural shape of the knee-joint is distorted in this manner.

Primary and solid union of the bone was secured. There is still a tendency of the tibia to ride backward when weight is placed upon the leg.



## UNUSUAL FRACTURE AT THE KNEE-JOINT.

DR. H. B. DELATOUR said it was not often that we had the opportunity of presenting fractures involving the knee-joint, and it seemed rather curious that we should have presented two cases on the same evening. His case was not similar to the fracture to Dr. Warbasse's, but it involved the same tissues.

We all know how invasion of the knee was looked upon in the past, except in those cases of already existing inflammatory trouble, such as tuberculosis. The speaker recalled the case of a physician whose life was lost through a compound fracture of the knee-joint some fifteen years ago. Opening the knee-joint was looked upon with dread, and no one would interfere until after suppuration had resulted and sepsis had taken place.

The reported case was that of a man 42 years of age, who, while working on a scaffold, fell some six or seven feet, striking with the knee flexed, landing probably on some planking and stones that were lying about the unfinished floors. He was brought to the hospital on April 27th with the leg partly flexed and a good deal of swelling about the knee-joint. It was impossible to make out what the local condition was. An anaesthetic was administered, and it was then evident that the upper end of the tibia was fractured, several fragments existing, and one fragment could be distinctly felt behind the outer condyle of the femur. It was impossible to replace it, and as no preparation for any operative interference had been made previous to the anaesthetic and the patient's consent had not been obtained, nothing was done that day.

On May 1st an incision was made across the front of the joint and then carried up over the outer side, so as to expose the entire joint as for an excision. Then a triangular-shaped piece of the head of the tibia was discovered, an inch wide and possibly two inches long, which had been driven up and fixed firmly behind the outer condyle. It was with the greatest of difficulty and manipulation and use of forceps for prying, that he was finally able to force the bone back into its position. He found that there were seven distinct fragments of the head of the tibia; and he was able to place them all in fairly good position. It was not necessary to wire or fasten them in any way. As soon as they were once placed in position and the leg extended, they maintained their proper relations. The joint was then closed, a small silkworm gut drain put in the outer side, and the patient made, as far as the operative in-

terference was concerned, an uneventful recovery, the temperature never going up enough to give any anxiety. It is needless to say the joint cavity was full of blood clots, and they were all cleaned out at the time of operation.

During his convalescence, a few days after the operation, it was necessary to administer large doses of sodium bromide and chloral, and there was considerable trouble from symptoms which necessitated that treatment. Since he left the hospital indulgence in the use of alcoholics has interfered with continuing the watching of the case. While there is a joint which is not freely movable, still find there is considerable motion there. Had he been able to keep up passive motion and have the patient do as instructed, he would have had a better joint than he has.

## FRACTURE-DISLOCATION OF ATLO-AXOID ARTICULATION.

DR. PAUL M. PILCHER presented a man who had been operated upon by Dr. L. S. Pilcher for the above condition. The patient had been sent to the hospital after adhesions had developed, and there were already far advanced paralyses. Operation revealed the fractured and dislocated axis so firmly fixed that correction of the deformity could not be made. However, the paralysis was slowly improving.

Dr. Pilcher said that in the intricate anatomical construction of the articulation of the atlas and axis there are several strong ligaments and a number of peculiar facets, which are oftentimes involved in a dislocation, combined especially with a fracture at this point. There are four or five different forms of dislocation and fracture which take place here, and a number of cases have been seen at autopsy in which the atlas was practically locked upon the axis, so that reduction could not take place. He did not know just exactly what took place in this case, but supposed that there was a fracture of the odontoid process, which was carried forward with the atlas and that it slipped down in front of the axis and became fixed and held in that position. This case was not brought to the hospital until twelve weeks after the accident, and in this time some bony union must have taken place, which probably hindered the reduction of the dislocation at the time of the operation.

## BECK'S OPERATION FOR HYPOSPADIAS.

DR. A. T. BRISTOW presented a case and said that up to the time that Dr. Carl Beck of New York brought out his operation for hypospadias,

there was probably not an operation in surgery which was so uniformly unsuccessful as any of the numerous operations for hypospadias. We were confronted with one of the most difficult conditions to insure primary union in the wound; in other words, when we made flaps out of skin, including the surface beneath, the urine flowed over these flaps, and in almost all cases we had sloughing. The speaker did not know that he ever saw a good result from any of the old operations for hypospadias.

Beck's operation is dependent upon the extensibility of the urethra, and consists in freeing the urethra with the corpus spongiosum from the corpora cavernosa, dissecting it back a sufficient distance, so as to get sufficient slack to anchor it in proper position. Beck applies two methods: In one case he simply splits the glans, and then freeing the urethra entirely from the cavernosa, he stitches it in the cleft which his knife has made, and then sutures the cleft. In some other cases he advises what he calls tunneling. He drives the knife through the glans, and then pulls the urethra through this and anchors it with four sutures.

The operation is not one of great difficulty. The speaker suggested that a rubber dam about the penis is of some assistance. There is little hemorrhage, except where the operator interferes with the anastomosis between the deep and superficial vessels. While there is no considerable bleeding, nevertheless one is annoyed with obstinate oozing, which is very troublesome. He had found that the suprarenal extract prevented this.

The case presented was a man of 19, on whom he did three Beck operations, for the reason that the hypospadias was so far back, that in the first operation he did not feel justified in freeing enough of the urethra from the cavernosa to bring it entirely through the glans without traction. There was some traction and it retracted a great deal. The second operation was more satisfactory, and the third operation was a complete success, so that the opening of the urethra came in its normal place. There was some little cicatricial contraction, so he gave the patient a short sound to use to keep the urethra dilated.

There was no particular trouble in the dissection, and the only important thing to do was to avoid getting into the cavernosa. The further back one goes the more fibrous tissue is found.

The great advantage of the operation is that the patient uses no catheter. For ten days after the operation he was kept under the influence of bromides to prevent erections.

### *Discussion.*

DR. H. B. DELATOUR said that he wished to commend the operation as one that is exceedingly satisfactory. He had tried the old operation in a number of cases to his sorrow. In the past two years he had had ten cases of hypospadias operated on by the Beck method, and eight of them were entirely satisfactory and successful in every way. Two of them were not, and they were in boys, one of 12 and the other 14. In the boy of 14 the penis was very small. There was a lack of development of the boy generally; he did not seem bright, and in his case the opening was at the scroto-penal junction. He brought the opening forward, and was able to keep it forward just behind the glans. In his case he operated three times; and every time, after about the third or fourth day, the patient had an erection and the whole thing tore out. It could not be controlled by bromides.

The other case, the boy of 12, had been operated on originally by Dr. Rand eight or nine years ago by one of the older methods but without successfully advancing the meatus. The speaker operated on him and succeeded in getting a very good result, except one of the sutures cut across through the mucous membrane about a half inch back of the glans, so that he had a fistula in the penis, as well as a good meatus. Six months later the speaker tried to repair that, and a couple of days afterwards found the sutures were entirely torn out. He tried a second time to close it, and it was not until after the third operation that he found why his sutures tore out. The boy was exceedingly curious to know what had happened, and about every five minutes he would turn the penis around to look at it, and in that way the sutures were torn out.

DR. RUSSELL S. FOWLER reported the case of a man 45 years old, with no history of syphilis, tuberculosis or rheumatism.

In 1881 the patient injured his right knee playing football and was laid up in bed for a month. After that at intervals after a slight step or wrench his knee used to balk, causing him great pain.

These painful attacks occurred at intervals of from 3 to 6 months, until May, 1901, when after an unusually severe one they became more frequent and more painful, until in June, 1902, he sought medical advice.

He was operated upon at the German Hospital June 6, 1902. An erosion of the joint was done, with removal of a bony plaque which ranged from  $\frac{1}{4}$  to 3 inches in diameter. The processes of the



synovial cavity which extend up behind the extensor muscles were almost completely obliterated by the bony growth.

These bony deposits were completely removed.

The wound was sutured without drainage and put up with moderate compression.

Passive motion was begun on the tenth day, and he left the hospital at the end of three weeks.

By the first of August the knee was capable of motion to a right angle, and six months afterward motion was normal. He had had no pain since leaving the hospital.

## THE BROOKLYN PATHOLOGICAL SOCIETY.

444TH REGULAR MEETING, NOVEMBER 12, 1903.

The President, J. C. MACEVITT, M.D., in the Chair.

HENRY G. WEBSTER, M.D., EDITOR.

*Report of Case*—Two Enteroliths passed per rectum; Specimens.

DR. H. PLYMPTON: These are two enteroliths passed by a patient of mine about five weeks ago, a man 5 feet 6 inches high, weighing 181 pounds, in the early part of the summer. While at his summer home he developed symptoms akin to malaria. The chills were not marked by any regularity at all, and he gradually lost 54 pounds in weight.

During the past year and a half he has had ten or twelve movements of the bowels a day, each movement being scanty and rather watery; no good movement at any time. On his return from the country he was taken with what I diagnosed as simple intestinal indigestion, and after a considerable time found the first of these enteroliths presenting in the rectum. After a good deal of trouble it was brought away, and the next morning the other one presented. That was brought away by simple enemas of hot water and soap, and that was followed by a continuous movement of the bowels lasting about twelve to fourteen minutes.

I have tried to dissolve these enteroliths in a solution of alcohol, but do not find cholesterol by this test. Where I have cut one open it shows a striated structure almost like a gall stone, easily friable, and with little bright shiny crystals. One of them is concave on one side and the other convex, showing there has been attrition.

*Presentation of Slide*—Section in a Case of Septic Metritis.

DR. A. MURRAY: This specimen is a section of a case of septic metritis. I am sorry I cannot give very much of the history. It was a criminal abortion case, and the operator either infected the woman or I think pushed his curette through the uterus. At the autopsy there was a very well marked peritonitis, and she was septic throughout. There were petechial hemorrhages all over the serous membranes, and the uterus was full of abscesses—phlegmonous particularly. Besides the septic metritis there was a septic lymphangitis, and, where the uterus was cut open, one could squeeze the pus out of it. The endometrium was gone, and this section does not show any endometrium, but if you will look through the microscope you will find the foci of pus in the sinuses and also in the lymphatics. They are stained blue and the muscle of the uterus is stained pink.

PAPER: OBSERVATIONS ON PUERPERAL SEPTIC INFECTION.

(See January issue, p. 1.)

BY CHARLES JEWETT, M.D.

### Discussion.

DR. H. P. DEFOREST: I am rather sorry to hear Dr. Jewett say that the results from the use of antistreptococcic serum are not satisfactory. Personally having seen such excellent results in cases of diphtheria, where, as we all know, there is oftentimes a mixed infection, I am myself a firm believer that sooner or later we shall discover the means to counteract this bacteria infection by a serum.

I do not know that there is anything I can add in the way of discussion further than what I have already said in the remarks in presenting the specimen of post-partum infection. There are several methods of treatment Dr. Jewett mentions that I confess are new to me. It perhaps is well to call your attention to the fact that the modern teaching of obstetrics is to lay more and more stress upon the necessity of asepsis and antisepsis. In Dr. Jewett's own section at the medical college it is the method for each student to be given an opportunity to scrub his hands and sterilize them in one of a half dozen methods, and then cultures are taken from the fingers and finger nails to see if the hands are clean. The results are surprisingly good.

I should like to add my own support to the statement which Dr. Jewett has made about the use of the curette. I have already stated on a previous occasion that I believe the use of the cu-



rette has done more harm in puerperal cases than any other procedure that has been devised. I believe that in most of these cases that we see with a temperature and chill three days after delivery, in three out of four cases it will be found, if the hand is introduced into the vagina, as it can easily be done, and the fingers passed into the uterine cavity, that a placental cotyledon has been left behind. In the past year I have seen cases, which other physicians have been kind enough to ask me to see, in one of which such a placental cotyledon was found, and in the other a placenta succentureata, the existence of which was not suspected by the physician in attendance. Each of these cases made an uninterrupted recovery.

DR. J. O. POLAK: I cannot let Dr. Jewett's paper pass without attempting to emphasize two or three of his points. The paper as a whole can receive nothing but commendation. There is no criticism permissible in such an exhaustive paper.

The use of the curette, or the abuse of the curette, I should say, that Dr. DeForest has called attention to, is one that it will be very difficult to drive out of the minds of many practitioners. I find it so particularly in this city, and found it so on the East Side of New York when I was doing work over there.

In a case of beginning sepsis the first thing a practitioner does is to curette the woman and so break through the limiting leucocyte zone and disseminate the sepsis, besides introducing many other organisms which did not exist there previously. The fingers will do everything that is necessary. They are valuable for exploration, because you can find out what is in there. They are useful for the removal of the offending material which you find there, and it can be removed very early without doing any particular injury to the uterus and breaking through this limited leucocyte wall, which is very improperly understood by the majority of practitioners. After that is done the cleansing of the uterus is probably a routine with most of us. I think that cleansing and leaving a strip of sterile or iodoform gauze in the uterus (never packing the uterus except for hemorrhage, and only one single irrigation of salt solution) is all that is essential.

One point that might be emphasized is the maintaining of retraction and contraction of the uterus by ergot or ergotol. Undoubtedly, by the contraction of the uterus we secure good drainage, and we offer the greatest barrier to the lymphatics that are already invaded. Fifteen or twenty minims of ergotol used hypodermically every

four hours has been a practice of mine, and I find it is extremely valuable after the uterus has been emptied with the fingers, or shown to be practically empty, which it is in the majority of cases.

The Doctor criticised Pryor's method of the treatment of sepsis. I have given it very thorough trial, and I believe that the isolation of the uterus is a very valuable form of treatment where the uterus is found to be absolutely empty with the finger exploration. Ten per cent. of the dry gauze may be used without any fear of iodoform poisoning in the peritoneal cavity, causing isolation of the uterus. At the same time the expectant treatment during the past year has given such perfect results that I have limited my isolation of the uterus, and replace it with a little more expectancy than I would have done a year ago.

In regard to antistreptococcic serum I have had considerable experience. I have felt I might just as well inject water, and that I would get better results from intravenous injection or hypodermoclysis.

DR. C. JEWETT: I have very little to say except to thank the Society for the kind manner in which they have received the paper.

With reference to the remarks of Dr. DeForest, I may say that we all no doubt have shared the theoretical hopes which he has given expression to, and based mainly on the great success that has obtained in the use of the antidiphtheritic serum. Unfortunately this does not seem to be a parallel with all other kinds of infection. While we may hope that we may have a serum for every kind of infectious disease, the prospect is not very good, if we can judge from animal experimentation with the antistreptococcic serum.

The trouble with the reports of the use of the serum in these cases is this: a considerable proportion of cases of streptococcic infection get well most unexpectedly and most severely sick women will recover. The streptococcic infection is not always virulent—the virulence differs very greatly. Another thing is the fact that interference may change the virulence of the organisms, so that we get recoveries in these streptococcic cases because the infection is locked up in the uterus, where it wears itself out.

The very best results that have been obtained, in the treatment of septic infection in childbed, have been gotten with the least possible interference with the uterus, and with very little other treatment except to support the resisting powers of the patient. The fact is, a good many of these

cases recover spontaneously, and the fact that recently under the expectant treatment the recoveries are larger than under any other treatment dismisses the serum for treating sepsis.

With reference to Dr. Polak's remarks, I may say that the matter of mixed infection, which some of his remarks suggested, is a very important one. The inference is that you introduce a new organism, and it has been shown that mixed infections are more fatal than simple infections. The streptococcus plus the colon bacillus is found to be a very dangerous infection.

With regard to Dr. Pryor's method, that certainly has yielded brilliant results, and it would do well in the hands of a man like Dr. Polak, but it would not be a good thing for general use, and I think he himself feels some doubt about the propriety of so much traumatism.

In speaking of that matter another method of treatment is suggested, which I did not allude to. It is this: It seems entirely rational to expect, that if you open the cul-de-sac in the beginning of a pelvic peritonitis, you ought to arrest the progress of the infection, but in every case in which I have done this, the patient has died, so that we do not gain much by drainage. The result is better with the packing as Pryor has used it.

*Report of Case: Post-partum Infection; Specimens and History.*

DR. H. P. DEFORD: The history of this case is rather a sad commentary on medicine, and shows a mistake which might happen to any one of us.

I was asked by Dr. Steele to see a young woman who had been delivered of her first child some eleven days previously. The labor, from the history, appeared to have been a normal one. At any rate, the woman who acted as nurse (not trained) said that so far as she was able to judge the labor was normal, the Doctor, not Dr. Steele, had pulled the afterbirth out, had looked at it, said it was all right and had gone home.

On the fourth day, about nine o'clock in the evening, the woman had a severe chill. The husband went to the physician, who said he would be over the first thing in the morning. She had five other chills that night of varying intensity, followed by considerable fever, no record of which I was able to find. She was seen the following morning by the physician in attendance, and Dr. Steele was called in from Baldwins.

It would appear that in the morning, when first seen, she had a temperature of 105, and when Dr. Steele saw her in the afternoon

her temperature was normal. He was not sure as to the certainty of the history and did not feel like interfering, as she appeared to be quite well at that time, and he returned to his home. The following day she had more chills. Dr. Steele came in again, and as she had been his patient formerly he insisted that a change should be made, and the case was then referred to me.

I saw her about eleven o'clock at night, and as the history had been told me by Dr. Steele and the husband, I asked Dr. Webster to meet me at the house and give an anaesthetic. At that time the woman's temperature was 106½°, about as high a temperature as I have ever seen, with the exception of cases of sunstroke or just before death. The odor in the room was putrid, and I thought from the history that I probably had to do with a retained portion of the secundines.

Under anaesthesia I passed my fingers into the uterus without the slightest trouble and brought out a mass of retained placenta, about enough to fill my hand. The mass was scraped away with my fingers as cleanly as I could, though there were a number of shreds. The uterus was like the single horned type and rather difficult to work in, still it was cleansed without much delay. The uterus was packed with iodoform gauze and the patient put to bed.

I was rather in hopes that after this the temperature would go down. It did go down a little bit—to 103°, then to 102° during the following day. I hoped that the removal of this placenta would put an end to the story, but the woman's temperature went up to 104°, then 105°, then 106°, and then she died.

I had seen a case a few years ago of Dr. Delatour's, in which an abdominal hysterectomy had been done for the relief of a condition similar to this. It was a very satisfactory and good result. The woman made an uninterrupted recovery. I reasoned the eleven days had gone by, and the probabilities were that the sepsis was not confined to the uterus alone, but there had been considerable septic absorption, and if the woman in this feeble state had been subjected to a hysterectomy, she would probably have died, and the operation would have been held to blame.

I had seen two cases in which good results had been secured by the use of the antistreptococcus serum, and took measures to procure a supply of it, but the patient died before it could be used.

The specimen which I removed shortly after the woman's death I show here. Last summer, while visiting the University of Montreal, I



found out a method of preserving specimens called the Joré method, and the specimen which the Curator of the University Museum showed me was so good that I got the formula, and this is the first specimen I have tried. It is a method which will commend itself to most of us on account of its cheapness, for it is made up of Glaubers Salts, 40 grams; Epsom Salts, 4 grams; Table Salt, 20 grams; 100 c.c. of Formalin and 2,000 c.c. of Water. The specimen is left in this solution to soak until fairly well decolorized, then it is put in 80 per cent. of alcohol for a day or two until the color comes back, then in 95 per cent. for another 24 hours, and then is preserved in a mixture of equal parts of glycerin and water.

The uterus, which has been treated in this way, shows its original color very well indeed. It moreover is not the stiff and unyielding specimen that is produced by methods employing alcohol alone. Inside it is interesting to notice the black dirty surface upon which this putrid placenta was attached.

#### BROOKLYN MEDICAL SOCIETY.

The Eighty-seventh Regular Meeting of the Brooklyn Medical Society was held on the evening of Friday, November 20, 1903. The Chair was occupied by Dr. JOHN H. DROGE, the Vice-President.

Minutes of the September and October meetings were read and adopted.

#### APPLICATIONS FOR MEMBERSHIP.

G. C. Dickman, 555 East Twenty-third Street, Brooklyn, P. and S., '90.

M. T. Rauh, 15 Palmetto Street, L. I., '97.

C. W. Brown, Bushwick Hospital, L. I., '03.

Peter Keeler, 1392 Herkimer street, Albany, '97.

Myles Purvin, 74 McKibbin Street, P. and S., '95.

#### ADMISSION TO MEMBERSHIP.

Dr. James F. Dougherty.

#### PROGRAM.

"Some Late Results of the Treatment of In-Operative Sarcomata with the Mixed Toxins," by Dr. W. B. Coley, of Manhattan.

Discussion by: Dr. John O. Polak, Dr. R. W. Westbrook, Dr. Walter C. Wood, Dr. John D. Sullivan, Dr. Walter B. Chase.

Dr. Coley's paper gave proof of the value of the results of the injection of the mixed toxins

in the treatment of cases of apparently hopeless sarcomata.

In the cases cited by Dr. Coley, there remained no doubt of the diagnosis, as they were corroborated, both clinically and microscopically, by competent men. As to the results of the treatment they were indeed very encouraging, in many cases improvement, in others, actual cure having taken place.

He exhibited a patient who was a remarkable living evidence of the value of this form of treatment. He was a young man who had a large tumor in the dorsolumbar portion of the spine, a specimen of which, on microscopic examination, was found to be a small round-celled sarcoma. The patient was completely paralyzed below the tumor, suffering also from paralysis of the bladder. At the time Dr. Coley was called in to see him he had been practically given up as dead, no hope being entertained of his recovery. He had lost sixty pounds in a very short time. He was then put under treatment, and for a time showed little improvement. However, it did set in, the tumor gradually lessened and its malignancy became lost. He then gradually regained the use of his limbs, began to walk, and general improvement took place, so that in a short time he was able to go about.

At time of presentation one was unable from external appearance to detect any organic defect, and only on examination of the spine, where a large, hard mass remained, were there any evidences that he had been so hopeless a patient.

HUGH EDWARD ROGERS, M.D.,  
Recording Secretary.

#### MEDICAL SOCIETY OF THE COUNTY OF KINGS.

#### SECTION ON OPHTHALMOLOGY.

At the November, 1903, Meeting of this Section, Dr. B. C. Collins presented a patient whose left eye had been injured by the glass of his own eyeglasses broken by his falling, the glass penetrating the cornea and lens with loss of some vitreous. Spontaneous absorption of the traumatic cataract followed, giving a decentered pupil and useful field vision of 20-70 with his correction, which was worn continuously and well tolerated. The vision of O.D. is 20.20.

Dr. P. CHALMERS JAMESON reported a case which he saw in consultation of exophthalmos with immobility of the globe. Recognizing nasal com-



plications which might be causal he referred the patient to Dr. Arrowsmith, who operated upon the nose to relieve a chronic purulent discharge. After the operation the signs of eye-involvement subsided.

DR. HEBER N. HOOPLE gave the history of a parallel case which was found to be accompanied by empyema of the antrum of Highmore on the same side as that of the affected eye, wherein great improvement had begun in the ulcer of the cornea and exophthalmos before the antrum trouble was discovered and operated on.

DR. JAS. W. INGALLS recalled a similar case presented to the Brooklyn Medical Society by Dr. Winter, in which there was double exophthalmos and double divergence, afterward completely relieved by intranasal operation on the ethmoids.

Dr. Ingalls also presented a patient with transient paralysis of the left third nerve; ptosis and dilatation of the pupil being complete. Rest and electricity were the means employed, and the case improved.

DR. B. C. COLLINS recalled a case of third nerve paralysis which came to his office one morning at 9 o'clock, in whom he recognized high arterial tension. He referred the patient to her family physician, but she died of cerebral hemorrhage the same night.

Dr. J. Scott Wood was elected Chairman of the Section, Dr. Heber N. Hoople Secretary-Treasurer, and Drs. E. W. Wright, David Meyer and H. H. Waugh, Trustees.

Drs. Bryan and Reynolds were elected, and Drs. Snyder, Farewell and Schalk were proposed.

HEBER N. HOOPLE,  
Secretary.

#### LONG ISLAND MEDICAL SOCIETY.

STEPHEN L. TAYLOR, M.D., EDITOR.

THE 122d Regular Meeting was held on the evening of Oct. 6, 1903, the President, Dr. R. H. POMEROY, occupying the Chair. The following was the scientific program: Paper by Dr. John R. Stivers. Report of a Case of Typhoid Fever with an Unusual Complication. An abstract of the paper is here given.

A male, aged 27, who had at the age of 25 been treated for alcoholism and for the cocaine habit and had had nephritis, had an attack of typhoid fever of more than usual severity, the temperature being about 105° F. for two weeks. During the second week he suffered with diarrhea, having 15 to 18 movements daily and not yielding to

ordinary remedies. At the end of the fourth week his condition was improving when he developed a femoral phlebitis, the entire limb being much swollen and an area of discoloration appearing at the upper part of the thigh. This subsided in a few days and convalescence seemed again established when he was attacked suddenly with pain in the right iliac region, accompanied with rapid pulse, fever and vomiting. Ice was applied and morphia given, also small doses of calomel. Within 48 hours the pain left the right iliac region and centered in the right testicle, which became swollen and tender. The usual applications for orchitis had little effect, and the swelling and severe pain persisted for about two weeks when fluctuation was evident. An incision was made and pus evacuated. Recovery followed, though the testicle was apparently destroyed.

Orchitis is an infrequent complication of typhoid fever, and little mention is made of it by authorities. Dr. J. M. Winfield states that he has seen a number of these cases and that the cases which suppurate are likely to prove fatal owing to the liability of peritoneal infection from the typhoid bacillus.

(To be continued.)

#### PROGRESS IN OTOTOLOGY.

BY J. E. SHEPPARD, M.D., AND S. H. LUTZ, M.D.

#### *Occlusions of the Lateral Sinus and Internal Jugular Vein.*

*London Lancet.*—In a long paper on Occlusion of the Lateral Sinus and Internal Jugular Vein, an essential part of the method employed by nature, and by the surgeon in imitation of nature, for arrest of acute general infection having its origin within the temporal bone, Balfance advises ligation of internal jugular as follows: "This should be undertaken (a) in acute pyemia and acute septicæmia whether the sinus is occupied by clot or by fluid blood; (b) if the sinus wall is gangrenous or its contents putrefying, unless it is perfectly clear that on both sides of the area of inflammation the lumen of the sinus is completely blocked by non-infected thrombi (how seldom this qualification will be operative will be obvious to those who have most experience of these cases); (c) if it is proved, or even suspected that the blood of the jugular bulb is in part or wholly clotted; and (d) if the jugular vein is thrombosed."

*Adenoids in Adults.*

Logan, in the *Laryngoscope*, in a paper on "Adenoids, with Special Reference to Adult Conditions," draws the following conclusions, among others, in regard to the ears: In patients exhibiting enlarged faucial glands there generally exist hypertrophies in the vault. He believes that operative interference is warranted in every instance, not only to relieve existing conditions, but to prevent impending ear complications.

*Nerve Deafness Due to Tobacco.*

Wingrave, in his address to the British L. R. and O. Association, draws the following conclusions from his study of "Nerve Deafness Due to Tobacco," and cites 17 cases.

1. That they were all cases of well marked nerve deafness (unattributable to other causes) occurring in heavy smokers.
2. That the loss of low tones in 50 per cent. suggests an auditory equivalent for a recognized ocular lesion.
3. The disease was symmetrical.
4. That 80 per cent. of the cases showed marked improvement on abstinence from tobacco. Three were cured.

*The Pharynx in Middle-ear Diseases.*

Theobold, in *Archives of Otolaryngology*, thinks there is a tendency for the otologists to give the middle ear too much and the naso-pharynx too little treatment. Constitutional treatment is very important and all troubles are not purely local.

*The Ears of School Children.*

Method and Result of Ear Examinations of Primary School Children in Zurich.—In an article in *Correspondenzenblatt für Schweizer Ärzte*, Laubi details his examination of 22,894 scholars. They were examined first by the teachers, and 7.2 per cent. of ear diseases found. When examined again by physicians 14 per cent. were found diseased. In his article he shows how necessary it is to have children examined by physicians instead of teachers, and how much better the children do if taken early to a deaf and dumb institution instead of losing time in school. He advises that all children who hear only at  $\frac{1}{2}$  to 2 metres, after all treatment is completed, whether the deafness is congenital or acquired, should be taught lip-reading at once.

Among 10.8 per cent. of ear diseases he found 51 per cent. tubal catarrh cases, results of chronic suppuration in 16.2 per cent., and active suppurating ears in only 2.4 per cent. of cases.

**Brooklyn Medical Journal.**

All communications, books for review, articles for publication, and exchanges should be addressed BROOKLYN MEDICAL JOURNAL, Library of the Medical Society of the County of Kings, 1313 Bedford Avenue, Borough of Brooklyn, New York.

Authors desiring Reprints of their papers should state on the galley proof the number of Reprints desired.

Each contributor of an Original Article will receive five copies of the JOURNAL containing his article, on application at the Library of the Society, 1313 Bedford Avenue.

A limited number of black and white drawings to illustrate papers will be reproduced by the JOURNAL free of charge. Electrotypes will be furnished at cost.

Alterations of the proof will be charged to authors at the rate of sixty cents an hour, this being the printers' charge to the JOURNAL.

*Entered at Brooklyn, N. Y., post office as second-class matter.*

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BROOKLYN-NEW YORK, FEBRUARY, 1904.

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**THE MEDICAL LIBRARY ASSOCIATION.**

ON another page of the *Journal* will be found the first annual report of the Medical Library Association of Brooklyn. We desire to call particular attention to it and to commend the work of the Association to the hearty sympathy and the practical support of all Brooklyn physicians, for it seems to us to contain the germ of a growth that will be of the highest importance in making secure the future maintenance and development of the great library of the Medical Society of the County of Kings. The phenomenal growth of this library is equalled only by the simultaneous provision of the facilities for its care and use. Within a few months the Watson and the Jones collections and the library of the German Dispensary of New York have been absorbed by it, but the book stacks for their reception were already in place, and at once these treasures have been available for reference and study. It goes without saying, however, that the greater the number of periodicals, complete files of which are acquired by a library, the greater must be the expense of keeping them up to date, and of binding them for future reference. This, though an important and weighty item in the annual budget of such a library, is but one of many items that have to be provided for regularly. A library, to be kept alive, must be fed as regularly and as intelligently as a human being. Here arises at once one of the specially difficult problems attending the effort of a County Medical Society in maintaining a great library. Such a society must in its very constitution be able to call to its membership every legal practitioner of medicine within its county boundaries. It is especially the younger physicians who most need



its help, and for whose advantage it is established. No large annual dues therefore should be required as a condition of membership. Any large enterprise, therefore, such as the erection of a costly building or the accumulation and maintenance of a great library, must be done through the voluntary co-operation of a lesser number who by age and opportunity may have acquired the means. This has been the history of our library building and of our library to the present time, and it is only in this way that future needs can be provided for. As a systematic auxiliary to the regular resources of the Society, we take it, this Medical Library Association has been planned. It is the hope of its organizers that at least one hundred physicians of Brooklyn may be found who will esteem it a privilege to give ten dollars a year to form a special fund for library uses.

Its comparatively small membership at present is due doubtless either to a misapprehension of the objects and methods of the Association, or to a lack of acquaintance with its existence. We urge its officers to bring their plans more thoroughly and insistently to the notice of their fellows, for we are confident that there is nothing that will appeal more to the generous co-operation of the physicians of Brooklyn than such a systematic plan for the permanent support and endowment of our Library.

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#### AN INJUSTICE TO A PHYSICIAN.

By a series of unfortunate events, a fellow physician and a member of our County Society was recently forced to suffer the indignity of arrest and detention at a police station, through absolutely no fault of his own. An overabundance of zeal on the part of an ambulance surgeon or the police, or both, has thus resulted in temporary embarrassment and perhaps permanent damage to a professional reputation, for which the physician appears to have actually no remedy except to resort to legal procedure. It, therefore, seems to us the part of the *Journal* to rectify any erroneous impression of wrong-doing on the part of the physician in question, which may possibly have been entertained within the ranks of the profession.

It gives us pleasure to say that Assistant District Attorney Bailey, to whose lot it fell to prosecute the case, asked for the physician an honorable discharge, saying that there was absolutely no evidence of wrong on the part of the

accused, to which Magistrate Furlong promptly acquiesced. The tentative diagnosis given by the ambulance surgeon upon which the arrest was made by the police, was entirely erroneous.

We congratulate Dr. Harriman upon the promptness with which he was acquitted, and trust that the case will serve as a warning to overzealous ambulance surgeons. As the Doctor is not desirous of making any one suffer by taking legal means to right himself before the public, we insert this notice, in order that no fault may be attached to him, in the eyes of the profession, at least.

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#### RADIUM IN THERAPY.

WITHOUT wishing in the least to detract from the enthusiasm of observers making use of this newly introduced therapeutic agent, we suggest that a year, at least, should be allowed to pass before any serious dissertation, discussing its use in cancer and in other serious diseases, is submitted to medical publications. The value of other therapeutic agents of apparently somewhat similar qualities have, we believe, been wrongly judged by untimely publication of their supposed qualities which have, subsequently, in some instances, had to be retracted. In the meantime experiment and investigation may proceed without fear that ultimate recognition will be accorded to whatever of value may appertain to this agent.

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#### OBITUARY.

JOSEPH M. HARCOURT, M.D.

Dr. Harcourt was born in Ireland in 1824 and died in Brooklyn, N. Y., on November 30, 1903. He graduated M.D. from the University of the City of New York in 1874, and during his professional life remained in this city. He was a member of the Medical Society County of Kings, from 1879 to 1903; of the Brooklyn Pathological Society, and of the New York Physicians Mutual Aid Association. In 1879 he presented a paper before the Society on "Evidence of Tubercle." The doctor was unmarried. His funeral was from the Catholic Church of Our Lady of Victory.

WILLIAM SCHROEDER, M.D.,  
Sec. of the Hist. Com.

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DR. CHAS. A. H. DESZIGETHY.\*

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 DR. FRANK W. SHAW.

The Attending Staff of the Dispensary of the Long Island College Hospital, at a meeting held January 13, 1904, adopted the following resolution:

*Whereas*, By the death of Doctor Frank W. Shaw, this staff has been deprived of one of its most trustworthy members and one of its most efficient workers, and

*Whereas*, We, his associates, have lost a beloved comrade whom we honored for his integrity of character, whom we respected for the high standard of his professional life, whom we admired for his unselfish devotion to the relief of the sick children of the poor, and whom we loved as a loyal friend and an ever genial and welcome companion; therefore be it

*Resolved*, That we extend to the bereaved family our heartfelt sympathy in their grief and also the assurance that the memory of Frank W. Shaw will be forever cherished by us.

WM. A. NORTHRIDGE, M.D.,  
 WM. B. BRINSMADE, M.D.,  
 WM. N. BELCHER, M.D.,  
 WM. F. DUDLEY, M.D.,  
*Committee for the Staff.*

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At a special meeting of the Medical Board of the Norwegian Hospital, held Jan. 11, 1904, the following resolutions were unanimously adopted:

*Whereas*, We the members of the Medical Board of the Norwegian Hospital, having learned with profound regret of the death of our late associate, Dr. Frank W. Shaw; and,

*Whereas*, Dr. Shaw, by his nobility of character, scientific attainments, and devotion to the sick, endeared himself to us as a man and a physician; be it therefore,

*Resolved*, That we, the members of the staff, fully realize and feel that by his death the entire medical profession has sustained a grievous and lasting loss; and furthermore be it

*Resolved*, That we tender our sincerest sympathy to his family in their bereavement; and further be it

*Resolved*, That a copy of these resolutions be sent to the family, and to the medical journals of our city; and be it further

*Resolved*, That these resolutions be spread in full upon the minutes of this board.

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## MEDICAL NEWS.

EDITED BY CLARENCE REGINALD HYDE, M.D.

*It is earnestly hoped that all members of the profession possessing news concerning themselves or their friends, which would interest others, will communicate the same to the News Editor before the 9th of each month. Items for this department should be sent promptly to Clarence Reginald Hyde, M.D., 126 Joralemon Street.*

Dr. Caroline H. LeFevre announces the removal of her office to 647 St. Marks Avenue.

Dr. W. A. Hulse, of Bay Shore, L. I., while riding his bicycle, was badly bitten in the calf by a fox-terrier. The doctor had considerable difficulty in shaking off the dog, which hung to him after he had dismounted from his machine.

Dr. Henry L. Schelling, of 841 Willoughby Avenue, intends soon to leave for Vienna, where he will study surgery and surgical technics.

It is rumored that in the near future the Board of Health will classify pneumonia as a contagious disease and insist that every pneumonia case shall be so reported.

Dr. Patrick J. Murray, of 851a Willoughby Avenue, the newly appointed Health Officer of this borough, was formerly superintendent of the Kingston Avenue Hospital. He is a graduate of Bellevue (1895) and the youngest physician who has ever held the office of Health Commissioner of this borough.

The annual dinner of the ex-internes of the Long Island College Hospital was held at the

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\* Courtesy of Dr. WILLIAM SCHROEDER.

Clarendon Hotel, January 25th, at 7 P.M. Dr. Joseph Merzbach, president of the Association, presided. An after-dinner entertainment was provided for the guests, the most amusing portion of which consisted of the efforts of a mind-reader to fathom the minds of some of those present. The dinner was well attended.

The widow of the late Professor Virchow has decided not to sell his extensive library, but to give it to several of the scientific institutions to which he belonged. At the last meeting of the Berlin Medical Association Professor Ewald announced the receipt for the society of about 7,000 of these books.

At the December meeting of the Section on Materia Medica, Therapeutics and Pharmacology, Dr. Elias H. Bartley was elected chairman for the ensuing year, and Dr. Charles J. Search, secretary. It was voted to change the name of the Section to that of General Medicine. All members of the Kings County Society are cordially invited to attend these meetings. Refreshments will be served.

St. Christopher's Hospital for Babies, on Hicks Street, has recently been extensively remodeled, and is now one of the finest institutions for the care of babies in this borough. The hospital is fully appointed and equipped with the most modern apparatus pertaining to preparation of foods, baths and other necessities. A feature especially welcome is the new roof garden.

Five men so far have been killed by the "caisson disease," or "bends," as it is commonly known. The present caisson of the new East River Bridge has been sunk nearly one hundred feet, and the air pressure at that depth is forty-five pounds to the square inch. All applicants for work in the caisson are instructed to provide themselves with a physician's certificate stating that they can stand forty-five pounds air pressure. No laborer with heart disease is employed, and there are emergency beds in a small hospital near the caisson. Those attacked with caisson disease all show practically the same symptoms. They suffer sharp and violent pains in the joints of the arms and legs, severe vomiting and gastric pains. The laborers call the disease the "bends," because of the distortions of the sufferer while in pain. The Health Department is at present trying to arrange matters so as to prevent as few deaths as possible.

The Long Island Medical Society will hold its annual dinner at the Clarendon Hotel February 2d, with Dr. Edward Hodges, the president, as toast-master.

At the annual meeting of the Medical Library Association of Brooklyn, Dec. 29, 1903, the following officers were elected: Dr. Frank E. West, President; Dr. H. N. Hoople, Vice-President; Dr. J. C. Mac Evitt, Treasurer; Dr. A. M. Judd, Secretary. Executive Committee: Drs. L. S. Pilcher, Wm. Browning, E. H. Burtly, J. E. Sheppard, W. C. Wood.

Program of the Medical Society of the State of New York, Jan. 26-28, 1904:

#### TUESDAY.

Executive Session: Opening Prayer, President's Inaugural Address, Reports of Officers and Committees, Report of the Committee of Conference on union of the two State Societies and action thereon. Executive Business: Election, by districts, of Committee of Nomination.

PAPERS: Sciatica, Its Diagnosis and Treatment; a report of 200 cases, Joseph Collins, New York. Tic-Douleureux and other Neuralgias from Intra-Nasal and Accessory Sinus-Processes, Sargent F. Snow, Syracuse. Traumatic Hemorrhage over the Third Anterior Frontal Convolution; Operation, Removal, Recovery, W. C. Krauss, Buffalo. Enuresis, George E. Beilby, State Industrial School, Rochester. The Toxaemia of Tuberculosis; Report of a case, Arthur W. Elting, Albany. Alkaline Treatment of Recurrent Vomiting of Children, Irving M. Snow, Buffalo. Dilated Urachus: Report of case; specimen, C. F. Timmerman, Amsterdam. Insufficiencia Pyloris, Mark I. Knapp, New York.

SYMPOSIUM ON DIABETES: Pathology of Diabetes, R. M. Pearce, Albany. Physiologic Chemistry of Diabetes, David Edsall, Philadelphia, Pa. Medical Treatment of Diabetes, William H. Thomson, New York. General Management of Diabetes, F. C. Shattuck, Boston, Mass. On the Synchronous Occurrence of Diabetes and Non-Diabetic Glycosuria, Heinrich Stern, New York.

SENATE CHAMBER — ADDRESS: Conflicting Claims of General Education and Professional Education, Arthur T. Hadley, LL.D., President Yale University. President's Address, Algernon T. Bristow, Brooklyn.

#### WEDNESDAY.

PAPERS: The Submerged Tonsil, Thomas Harris, New York. Chronic Laryngitis, Z. L. Leonard, New York. A Plea for more Accurate Knowledge in the Diagnosis and Treatment of Chronic Otitis Media, J. F. McCaw, Watertown. Angina due to the Bacillus Capsulatus of Pfeiffer, Charles Stover, Amsterdam. Irritable Blad-



der in Women, R. L. Dickinson, Brooklyn. Fifteen Years' Experience with Uterine Fibroids, W. E. Ford, Utica. Results in Diffuse Septic Peritonitis Treated by the Elevated Head and Trunk Position, Russell S. Fowler, Brooklyn. Asthenopia: A Clinical Study, D. H. Wiesner, Brooklyn. The Relation between the Muscles of the Eye and those of other parts of the Body, Lucien Howe, Buffalo. Diagnosis and Treatment of Glaucoma, D. B. St. John Roosa, New York; discussion by David Webster and Thomas R. Pooley. A Study of the Climate of Long Island, W. H. Ross, Brentwood, L. I. Independent Primary Cancer in the Same Individuals, A. L. Benedict, Buffalo. The Treatment of Cancer by Its Own Toxin, P. J. McCourt, New York. Recent Researches in Radio-Activity and Electricity; their Bearing on Radio-Therapy; Legal Status, J. S. Wight, Brooklyn.

PAPERS: On Lesions in the Structures Surrounding the Knee Joint, Nathan Jacobson, Syracuse. Report of 615 Surgical Cases Attended at the Albany Hospital from March 1, 1902, to March 1, 1903, with remarks, Albert Vander Veer, Albany. A Case of Gun Shot Wound of the Brain, John A. Wyeth, New York. A Personal Experience in the Surgical Treatment of Mammary Cancer, with a Post-Operative Résumé of Cases, Willis G. MacDonald, Albany. Tubercular Myositis: Report of a Case, William B. Brinsmade, Brooklyn. Associated Cases of Staphylococcus Aureus Infection, Arthur G. Root, Albany. The Non-Operative Treatment of Trachoma, Frank J. Parker, New York. Aphasia and Agraphia, Edward D. Fisher, New York.

SYMPOSIUM ON ABDOMINAL PAIN: Abdominal Pain in General and that due to Abnormal Conditions of the Stomach, Liver, Kidneys and Pancreas, John H. Musser, Philadelphia, Pa. Abdominal Pain Referable to the Abdominal Walls, Joseph D. Bryant, New York. Abdominal Pain of Pelvic Origin, William M. Polk. Abdominal Pain of Intestinal Origin, F. H. Wiggin, New York; discussion by M. H. Richardson, Boston; Robert F. Weir, New York; G. R. Fowler and Charles Jewett, Brooklyn, W. H. Carmalt, New Haven.

President's reception at the Hotel Ten Eyck from 7.30 to 8.30. Dinner at 8.30 at the Hotel Ten Eyck.

THURSDAY.

PAPERS: A Case of Recurring Membranous Stomatitis, Associated with Erythema Exudativum Multiforme (Hebra), Louis E. Blair, Al-

bany. The Hospital Car: its Equipment, Uses and Importance, W. W. Sanford, New York.

SYMPOSIUM ON NEPHRITIS: Pathology of Nephritis, Francis Delafield, New York. Real Decapsulation from the Pathologists' Point of View, J. M. VanCott, Brooklyn. Surgical Treatment of Nephritis, G. M. Edebohls, New York. General Treatment of Nephritis, Beverly Robinson, New York.

The Trustees of the Williamsburg Hospital have decided to purchase the present building in which the Hospital is now located, and intend to entirely remodel the structure. Two important features will be a new, modernly equipped, operating room, and an elevator. The Dispensary will be moved to the basement, and the floor on which the Dispensary now is will be used entirely for administration purposes—offices, reception rooms and a dining room. The present entrances will be abolished, the main entrance being on South Third Street. The Hospital will be newly decorated and painted.

Dr. Charles L. Fincke, of 166 Clinton Street, assistant pathologist of the Long Island College Hospital, has been confined to his house with a badly infected arm, resulting from an autopsy.

## BOOK REVIEWS.

TREATISE ON DISEASES OF THE RECTUM, ANUS, AND SIGMOID FLEXURE. By Joseph M. Mathews, M.D., LL.D. Third Edition, revised. N. Y., D. Appleton & Co., 1903. xii, 9-589 pp. 8vo. Price: Cloth, \$5.00.

A book which has reached its third edition can be considered to have filled a want, and established a firm footing for itself. Dr. Mathews' latest revision is thorough and up to date. The author's style of writing is of interest, somewhat discursive at times, occasionally colloquial and embracing homely and unnecessary details, but always interesting and readable. The work is comprehensive in its scope and deals not only with the primarily surgical diseases of the rectum and sigmoid flexure, but also with constipation, impacted faeces and "nervous rectum." The last term, the author believes to be a misnomer, as he almost invariably finds some actual lesion the removal of which relieves the condition. So also with neuralgia of the rectum. "Mucous colic" he believes, in direct opposition to many excellent authorities from Da Costa to von Noorden, to be always due to actual disease of the colon. From the diagnostic side the book is of high value. Its medical therapeutics are quite as good and are given in ample detail for the practitioner. But it happens as a matter of course that the author writes with especial interest and fullness regarding the surgical management of rectal and colonic diseases. A considerable number of case-histories attest his good judgment and skill, while at the same time he does not hesitate to mention his failures as well as his successes.

The book is well printed and fully illustrated with six plates in color and numerous cuts. It is well worth having.

GLENTWORTH R. BUTLER.

A REFERENCE HANDBOOK OF THE MEDICAL SCIENCES, Embracing the Entire Range of Scientific and Practical Medicine and Allied Science. By Various Writers. A New Edition, completely revised and rewritten. Edited by Albert H. Buck, M.D. Vol. 6. N. Y., W. Wood & Co., 1903. vii, 1004 pp., 51 pl. 4to. Price: Cloth, \$7.00.

This magnificent volume is the product of about one hundred and fifty writers, the majority of whom are known to fame, belonging chiefly to this country, although Canada and Great Britain are also represented. It contains 1,004 pages of reading matter in small but clear and easily read type, whereby one may form some estimate of the enormous amount of material contained therein. The presentation of topics is with hardly an exception clear and concise, a surplusage of words having been carefully avoided. Dr. Buck deserves sincere and admiring congratulations on his signal success as a managing editor, since it must be largely due to his discriminating supervision that such results have been attained. The volume contains 764 engravings and 9 insert plates in black and colors.

The arrangement of topics is of course alphabetical, and the respective articles are in reality brief, but complete, monographs. This being a new edition of a great work, the opportunity for revision and rewriting has been availed of in a most thorough and exhaustive manner, and the whole publication is to be commended as the best of its class.

The publishers, while deprecating invidious distinctions, venture especially to mention the following articles, doubtless with the advice and consent of the editor, in whose judgment one heartily concurs: on Muscles, by Prof. Simon H. Gage, Lydia M. Dewitt and Frances J. Shephard; on Nasal Cavities, by Robert C. Myles; on Parasites, by Henry B. Ward; on the Nervous System, by Pearce Bailey, James J. Putnam, Wm. M. Leszynsky and Lewellys F. Barker; on Ophthalmological topics, by John Green and Beaumont Small; on Ovariectomy, by Hunter Robb; on the Ovum, by Robert P. Bigelow; on the Pelvis, by Frank Baker; on the Pharynx, by Seth Scott Bishop; on Pleurisy, by Frank W. Jackson; on Pneumonia, by Andrew H. Smith; on Poisonous Plants, by Henry H. Bushby; on Poisonous Reptiles, by Gustav Langmann; on Poisons, by Charles Harrington and R. H. C. Chittenden; on the Prostate, by Arthur T. and Hugh Cabot; on Ptomaines, by Rudolph A. Witthaus; on the Pulse, by Wm. S. Morrow; on Reflexes, by Joseph Fraenkel; on Reparative Surgery, by Joseph Ransohoff; on Resection of Joints, by Frank Hartley, and on Roentgen Rays, by Wm. C. Borden.

GLENTWORTH R. BUTLER.

SYSTEM OF PHYSIOLOGIC THERAPEUTICS. Edited by Solomon Solis Cohen, A.M., M.D. Vol. X. Pneumotherapy: Including Aerotherapy and Inhalation Methods and Therapy. By Dr. Paul Louis Tissier. Phil., P. Blakiston's Son & Co., 1903. 479 pp. 8vo. In eleven volumes. Price: Cloth, \$27.50; leather, \$38.50.

This book is divided into two parts. Part I—Aerotherapy—deals with air as a therapeutic agent, pneumotometry and spirometry, the use of air modified in composition and temperature, physiologic and pathologic effects of the compressed air bath, the pneumatic chamber, effects and uses of rarefied air, differential pressure methods and their therapeutic uses, general and respiratory gymnastics, and mechanical pressure methods.

Part II—Inhalation Methods and Therapy—considers

the inhalation of gases, fumes, and vapors, medicaments suitable for use as vapors, atomization of liquids, inhalation of mineral waters at their sources, and the inhalation and insufflation of powder.

The treatise under consideration concerns methods of treatment which are but moderately practiced—and still less understood—by the majority of practitioners. Those who employ them most systematically and with understanding are their warmest advocates because of the good results obtained. Nevertheless, because of the apparatus required, the great attention to detail involved, and the time consumed in their practical use, many of these methods are adapted rather to use in institutions than in the office of the ordinary medical man. There is, however, no doubt that the internalist, in particular, should employ at least the simpler methods to a greater extent than is customary. No one who has the least interest in this subject should fail to procure Dr. Tissier's book. It is the most thorough, scientific, and satisfactory presentation of the theory and practice of these most interesting modes of therapy which has yet appeared.

The book is well-printed, illustrated by 116 cuts, and possesses an excellent index.

GLENTWORTH R. BUTLER.

ANATOMY. A Manual for Students and Practitioners. By Henry E. Hale, A.M., M.D. Phil. and N. Y., Lea Bros. & Co., 1903. 389 pp. 12mo. Price: Cloth, \$1.00. (*The Medical Epitome Series.*)

This volume is one of a series belonging to the Medical Epitome Series. It is an excellent and concise résumé of "Gray." In this small work the student gets a correct perspective of the entire subject of anatomy. Moreover, there is placed at the end of each paragraph a series of practical questions for self-examination. We believe that this is an improvement over the former plan of beginning the paragraphs with questions and thus interfering with connective reading or study.

We would recommend this volume to all those who wish a concise and scientific review of "Gray" in a small book.

WILLIAM FRANCIS CAMPBELL.

OBSTETRICS. A Textbook for the Use of Students and Practitioners. By J. Whitridge Williams, M.D. New York and London. D. Appleton & Co., 1903. Front. xxii, 845 pp., 8 pl., 7 col. pl. 8vo. Price: Cloth, \$6.00.

For the obstetric teacher and the well read practitioner Dr. Williams' book is one of the most notable contributions to the science and art of obstetrics that have appeared in recent years. The author's intimate knowledge of the literature, his exceptional training in the tributary sciences, his store of well digested clinical data, and the judicious manner in which he handles disputed questions combine to place him in the front rank of modern obstetric authorities.

In point of literary excellence the work is beyond criticism and the text is elucidated by numerous illustrations, many of which are original and all well chosen from the standpoint of teaching value.

Conspicuous features are unusual fulness in matter of historical data, and of histological detail, the rigid enforcement of asepsis, original research work in numerous lines and a well selected bibliography appended to each chapter.

The arrangement does not differ materially from that followed in most recent textbooks.



The anatomy of the pelvis and the female organs of generation is rightly included as an essential part of a treatise on obstetrics. What the obstetrician needs to know is not for his purpose so well presented by the general anatomist. This part of the text is fully illustrated by very effective half tones and line drawings.

In connection with the histology and physiology of the ovary and structure of the corpus luteum are very fully discussed. To this subject the author has contributed a monograph relating to the origin of the lutein cells.

The menstrual process, the author holds, is attended with little or no destruction of endometrial tissue. The bloody flow is due in great measure to diapedesis. Five days of the menstrual cycle are occupied with the preliminary swelling of the endometrium, four with the menses proper and seven with regeneration. The endometrium thus remains quiescent during about twelve days in each month.

The relation of menstruation to ovulation is considered at some length with allusion to the views of different writers. The fallacy of the so-called menstrual nerve theory of Tait and Johnstone is pointed out. The author concludes that, as a rule, menstruation and ovulation occur at about the same time. Ordinarily the Fallopian tubes take no part in the menstrual function.

External migration of the ovum is regarded as an established fact and internal migration as theoretically possible. Fertilization usually occurs in the tube, rarely in the uterus.

The essential facts and principles of embryology are presented in a way that brings this somewhat difficult subject within easy comprehension for the average medical reader.

In the chapter on changes in the maternal organism resulting from pregnancy allusion is made to the commonly over-estimated amount of urea excretion. It is of interest to the obstetrician to note that the average normal output *per diem* does not exceed 20 to 24 grammes. We may be pardoned for mentioning a typographical error in quoting figures from the Doremus ureometer, page 459. Thousandths of a gramme should read hundredths.

Under the signs of pregnancy are included only those of actual practical value. Hegar's thinning of the isthmus uteri, von Braun's longitudinal furrows and the differential density of the corpus uteri are especially mentioned as among the significant changes in the early weeks. A character of the gravid uterus which the reviewer has emphasized as of still greater diagnostic value in the second month is the increased width and marked softness of the body of the uterus when quiescent between contractions, properties of the gravid uterus which are simulated by no pathological condition.

Under normal pregnancy the author presents a simple method of obstetric palpitation for making out the presentation and position of the foetus in the antepartal examination. Abdominal palpitation is reduced to four "manoeuvres" and vaginal to three. These suffice for practically all requirements in normal and abnormal cases.

A full and precise exposition is given of the physiology and clinical course of labor. Schroeder's view of the lower uterine segment is adopted as practically established by the work of Franqué and Dittel. The latter authors have shown conclusively that it is derived in part from the cervix and in part from the lower

portion of the body of the uterus. All the changes occurring in the uterus and in the pelvic floor during the first and second stage of labor are very fully detailed with the aid of excellent illustrations.

The mechanics of head flexion is referred solely to the leverlike action of the foetal head during labor, no allusion being made to primary flexion. Rotation is ascribed to the resistance of the planes of the pelvic floor as proven by the well known experiment of Dubois, and not to the shape of the bony pelvis. Yet we would suggest that the influence of certain pelvic deformities in the etiology of posterior rotation of the occiput cannot be overlooked. More respect is paid to scientific accuracy than to convenience in teaching and to practical simplicity in making six instead of four positions of the vertex.

In face births, when seen early, the author would generally attempt conversion into vertex, despite the fact that anterior varieties may often be trusted to terminate spontaneously. We are pleased to note that this is regarded as good practice owing to the possibilities of dystocia even in apparently favorable chin presentations.

External version when practicable is advocated in breech presentation.

The chapter on the conduct of normal labor is replete with useful, practical details. Here, as everywhere, the strictest asepsis is enjoined. The permanganate method of hand cleansing is recommended. Yet it is pointed out that no method of hand cleansing can be depended upon for sterile results. Hence the importance of refraining from needless internal manipulation. The use of rubber gloves is endorsed but, without due care, infection may be carried on the gloved finger even though primarily sterile.

The author rightly insists on a definite routine in examining. Mistakes in diagnosis are due no less frequently to carelessness than to ignorance. Skill depends in great measure on painstaking habits.

Dr. Williams protects the perineum by directly retarding and regulating the expulsion of the head, not by pressure upon the pelvic floor. Ritgen's method of expressing the head between the pains is approved. Stripping back the perineum from the presenting part and Godell's manipulation through the rectum are justly condemned. The pernicious practice of watching the descent of the head with the fingers in the vagina is strongly reprehended. The author sees no utility in episiotomy. The advantage of late ligation of the cord is explained, a matter too often neglected by the general practitioner.

For obstetric analgesia chloroform is preferred, yet its use is postponed as long as conditions permit. It is not to be employed after the completion of the second stage. The subarachnoidal injection of cocaine is not approved. Its general use, the author believes, would doubtless be followed by many deaths from meningitis.

The management of the third stage of labor is treated with the thoroughness which its importance deserves. Placental expression is not practiced till the placenta has been extruded into the lower uterine segment as indicated by the upper movement of the fundus. As pointed out by Pinard and others the fundus rises four or five centimeters at the moment when the placenta is expelled from the contractile portion of the uterus, a fact too commonly neglected. Fragments of membranes are removed only when this may be done without in-

roducing the fingers into the vagina. They are better left to be cast off naturally when they lie wholly within the uterus or the vagina. Special stress is justly laid on the danger of manipulation within the birth canal soon after the birth of the child.

Ergot is given only in accordance with Pajot's well known rule, and not at all unless indicated by failure of uterine contractions after labor. When required, intra-muscular injections are preferred.

Repair of perineal tears follows the principles laid down by Emmet. This operation is done while waiting for the separation of the placenta, as has long been the reviewer's practice. Silkworm gut is recommended. Ordinary catgut is not advised, though nothing is said of chromic gut, which practically serves the purpose well and saves the patient the pain and annoyance of removing non-absorbable sutures. Immediate suture of the lacerated cervix is practiced only when demanded by hemorrhage.

In the chapter on the physiology and management of the puerperium the researches of Sanger are cited to the effect that involution of the uterus is a process of fatty degeneration in so far only as the protoplasm of the muscle cells is concerned. The cells atrophy but are not destroyed, and the number of cells is not materially diminished.

It is suggested that the hyaline changes which take place in the tunica media of the uterine arteries after labor, and evidence of which persists for years, afford a ready means of differentiating under the microscope between the nulliparous and the parous uterus.

The routine use of Cred 's solution for the prevention of ophthalmia in the new born child is recommended for hospital practice. We believe the prophylactic instillation to be even more essential in family practice and prefer a two per cent. argyrol or a freshly made ten per cent. protargol solution. The latter silver salts are quite as effective as the nitrate and in the strength mentioned are non-irritant.

As the best galactagogue, a proper hygienic regimen, including open air exercise, is advised.

The chapter on induction of abortion and premature labor is a very practical presentation of these operations. Premature labor in disproportion between the size of the head and pelvis is approved only in large heads with normal pelves. Krause's method is practiced when time permits, the Champetier de Ribes balloon is substituted when rapid delivery is demanded. Harris' single handed dilatation of the cervix is preferred to the procedures advocated by Edgar and Bonnaire. Instrumental dilatation is not regarded favorably. Reynolds' dilator is mentioned, but nothing is said of the much exploited Bossi instrument. From this we infer the author rightly condemns it. D hrssen's vaginal Cæsarean section is considered unjustifiable.

The chapter on forceps is especially full in practical detail. The conception on which the instrument is based is credited to Albucasis, who died in 112. Due importance is attached to the cephalic application of the blades when practicable. The value of forceps for rotation in arrested occipito-posterior positions of the vertex is strongly emphasized. Failure of spontaneous rotation has been robbed of its terrors. Williams employs the axis-traction instrument in all cases, using the traction rods or not as circumstances require.

The author's views of Cæsarean section and symphyseotomy are of special interest. He advocates ex-

tending the scope of the relative indication for the Cæsarean operation in pelvic contraction. The commonly assumed innocuousness of craniotomy he justly denies. Cæsarean section in eclampsia he thinks permissible in rare instances. When possible, operation before labor is advised. In border line cases of pelvic contraction the indication is generally best determined after labor is well established.

Eventration of the uterus is not practiced except when its contents may be septic. Nothing is gained by Fritsch's transverse incision, he thinks. Hysterectomy for sterilization is considered permissible in weak minded or diseased women with marked pelvic deformity. Symphyseotomy Williams does not expect to perform.

A chapter is devoted to minor operative procedures, including curetting and douching. Williams, as is well known, almost wholly rejects the latter measures in the treatment of childbed infection. As one argument against antiseptic douching in septic endometritis the author cites forty fatal cases of mercurial poisoning collected by himself which followed the use of mercuric solutions for intrauterine injection. The general objections to curettage in puerperal infection are still further emphasized.

The accidental complications of pregnancy due to disease and the complications resulting directly from pregnancy are treated separately. Under the latter head the more important literature of toxæmia is briefly reviewed. This complication, as it relates to eclampsia, is discussed at length, and is considered to be a probable factor in certain cases of hyperemesis. Nothing is said of its presumed relation to acute yellow atrophy of the liver, but the reader is referred to an article on the subject by Wendt.

Owing to the genetic relation of chorionic epithelioma to hydatidiform mole the importance of keeping the patient under close observation for several months after the removal of the degenerated chorion is strongly insisted upon. The term deciduoma malignum, originally adopted by Sanger, Williams still prefers to chorio-epithelioma and the various other designations which have been proposed for this neoplasm.

The chapter on extra-uterine pregnancy is one of the best systematic writings on the subject. Webster's decidual reaction theory is not fully accepted. Five cases are cited in which the primary ovarian character of the pregnancy has been fully established. Of tubal pregnancy the isthmic variety is the commonest in Williams' experience. Intraligamentous rupture occurred but once in 50 specimens of extra uterine gestation examined by the author.

Of special interest is Williams' experience in labors following ventro-suspension and ventro-fixation of the uterus. Of 20 cases, serious dystocia occurred in but one. This woman was successfully delivered by manual dilatation of the cervix and podalic version. Owing to pain at the seat of fixation the abdomen was opened a few weeks after labor. It was found that the fixation had been done with buried silkworm gut sutures. Suspension, he thinks, is devoid of obstetric danger. Fixation he would reserve for women past the menopause. Vaginal fixation is condemned from the obstetric standpoint.

The dangers of fibromyomata complicating pregnancy are enumerated as premature expulsion of the ovum, oedema of the tumor, twisted pedicle, obstructed



labor, malpresentation, inefficient uterine contractions at labor, predisposition to placenta prævia, post partal hemorrhage and degenerative changes in the tumor.

In the lying-in service of the Johns Hopkins Hospital pelvic contraction has been observed in 13.1 per cent. of the women confined. The large percentage is attributed to the fact that one-half the patients were blacks. The frequency of contracted pelvis among white women in America is estimated at seven or eight per cent. The author very pertinently remarks that the physician who practices obstetrics without pelvimetry must be regarded as no better than one who treats diseases of the heart and lungs without the aid of auscultation and percussion.

He adopts the generally accepted autointoxication theory of eclampsia as affording the best explanation of the clinical facts. The prospect of further developments lies, he thinks, in the study of the metabolism in normal pregnancy as well as in puerperal convulsions. He does not believe, as certain other writers do, that eclampsia is a wholly preventable disease. In the treatment, bleeding is advocated for all cases in which the convulsions do not cease after delivery regardless of the character of the pulse. Contrary to the usual teaching the reviewer has long pursued a similar practice in the use of *veratrum viride*. Its administration is not necessarily restricted to cases with a hard bounding pulse.

While Cæsarean section in placenta prævia may possibly be justifiable in very exceptional instances the author is right in protesting that its widespread employment would be productive of far more harm than good.

In rupture of the uterus he thinks the interests of the patient will best be subserved by laparotomy, no matter what the character of the tear and whether hemorrhage is present or not. This is in marked contrast with the prevailing opinion.

In asphyxia of the newborn, Laborde's method is regarded as the most effective method of resuscitation.

The chapter on puerperal infection is a masterpiece. No better exposition of the subject has yet appeared in the language. Williams' views with reference to treatment are well known. Except in retention of gross necrotic material his plan is an almost purely expectant one so far as the uterine cavity is concerned. While there is not as yet entire unanimity of opinion with reference to douching and curetting, the plan in question, as we can testify, has yielded by far the best results in streptococcic endometritis.

Phlegmasia alba dolens, it is believed, may sometimes occur independently of infection. Local applications of a 15-20 per cent. solution of ichthol, of which favorable mention is made, we have found a useful measure.

That Duchenne's paralysis as pointed out by Carter is more frequently the result of stretching than of pressure upon the nerve trunks of the brachial plexus accords with the reviewer's frequently expressed belief.

In conclusion, Dr. Williams and the profession of the country are to be congratulated on the credit his work reflects upon American medical scholarship.

CHAS. JEWETT.

**THE FOUR EPOCHS OF WOMAN'S LIFE.** A Study in Hygiene. By Anna M. Galbraith, M.D. With an introductory note by John H. Musser, M.D. Second edition, revised and enlarged. Phila., N. Y. and Lond., W. B. Saunders & Co., 1903. 244 pp. 8vo. Price: Cloth, \$1.50.

Four principal topics are considered in Dr. Gal-

braith's book: Maidenhood, Marriage, Pregnancy and the Menopause. In the present edition three new sections have been introduced: one on the Hygiene of Puberty, one on Hemorrhage at the Menopause, a significant symptom of cancer, and one on the Hygiene of the Menopause.

The book is written especially for the lay reader. Its object is a commendable one, and for the most part its teachings reflect the generally accepted views. To wives and mothers it should prove a source of much needed information.

CHAS. JEWETT.

**PRACTICAL APPLICATION OF THE ROENTGEN RAYS IN THERAPEUTICS AND DIAGNOSIS.** By William Allen Pusey, A.M., M.D., and Eugene Wilson Caldwell, B.S. Phil., N. Y. and Lond., W. B. Saunders & Co., 1903. 591 pp., 49 pl., 4 col. pl. 8vo. Price: Cloth, \$4.50; Sheep or Half Morocco, \$5.50.

The rapidly growing X-ray literature makes this latest addition to the subject especially opportune, for all of the newer points as well as the established facts have been collated, and after careful sifting have been embodied in this volume of nearly six hundred pages.

The first part, comprising two hundred and fifteen pages, is written by the Director of the Gibbs X-ray Laboratory, University and Bellevue Hospital Medical College, New York. This part discusses the X-ray apparatus and its accessories, the method of making skiagraphs, etc. The technical matter is made so clear that after reading this part of the book one would be justified in considering himself well posted on the relative qualities of static machines, X-ray coils, tubes, etc. The second part of the book is from the pen of Prof. Pusey of the University of Illinois, and is a clear demonstration of the therapeutic application of the X-ray. The large experience and painstaking care of the author make this part of great value to any one working with the Roentgen ray. The book should be read by those of experience, as well as by those who are not fully impressed with the great potentiality of this unknown electrical force, for here is to be found advice regarding machines, the application of the ray, and what is more important, warning as to the dangers of the X-ray in the hands of the unskilled. The illustrations are numerous and of high order, the general make-up of the book similar to all those of the well-known publishing house of W. B. Saunders & Co.

JAMES M. WINFIELD.

**PORTFOLIO OF DERMOCROMES.** Vol. I. By Professor Jacobi. English Adaptation of Text by J. J. Pringle, M.B., F.R.C.P. Lond., Rebman, Ltd.; New York, Rebman & Co., 1903. viii. 40, iv, 41-82 pp., 24 col. pl. 4to. Price: Half Morocco, \$7.50.

The success of the German edition of Prof. Jacobi's atlas of skin diseases prompted the Rebman Co. to publish an English edition. The text has been translated and adapted by the well-known English dermatologist, Dr. Pringle. The illustrations are exceptionally fine and nearly all are reproductions from models in Prof. Neisser's clinic in Breslau. The appearance of the more common forms of skin diseases is well reproduced, and so true to life are the pictures that the atlas cannot fail to be of great value to anyone seeking aid in the diagnosis of cutaneous affections, as well as to the skilled dermatologist. For the general practitioner we recommend the book in terms of highest praise.

The paper, printing and binding are excellent, and the general make-up of the volume reflects great credit upon the publishers.

JAMES M. WINFIELD.

TEXT-BOOK OF THE PRACTICE OF MEDICINE. By Joseph M. Anders, M.D., Ph.D., LL.D. Sixth Edition, thoroughly revised. Philadelphia, New York and London, W. B. Saunders & Co., 1903. 1295 pp., 7 pl., 8vo. Price: Cloth, \$5.50; sheep or half morocco, \$6.50.

This careful author has prefaced six editions of his "Practice of Medicine" in the same number of years, which fact alone bears witness to its merit and popularity. The arrangement of previous editions is observed and this is a revision and augmentation really of the fifth edition. In every department of medical science facts are discovered and new ideas are advanced so rapidly that a new edition of any standard work is awaited with more interest than a new work on the subject from the prestige which comes of previous confidence, and the work before us is particularly pleasing in its discussions of the more recently named diseases. Anders' Practice is worthy of most careful study, and will long hold a place of the highest prominence among works of its class.

WM. S. HUBBARD.

A MANUAL OF ELECTRO-STATIC MODES OF APPLICATION, THERAPEUTICS, RADIOGRAPHY, AND RADIOTHERAPY. By William Benham Snow, M.D. *Second Edition*. N. Y., A. L. Chatterton & Co., 1903. xix, 302 pp., 13 pl. 8vo. Price: Cloth, \$3.00.

This book, in its Second Edition, has been revised and its scope enlarged. It is divided into three sections, dealing respectively with electro-static modes of application and therapeutics, skiagraphy, and radiotherapy.

The early chapters of the First Section treat of the relative merits of currents, apparatus, the care of the machine, the methods of charging it, and of determining the polarity. Next are considered the various static modalities, their methods of production and administration, and their physiological actions. The remainder of this section is devoted to the general principles of electro-static administration and therapeutics, and the treatment of special diseases and conditions, including inflammation, painful neuroses, paralysis, pathological muscular contractions, skin diseases, psychical and functional neuroses, and miscellaneous diseases.

The Second Section states the uses of the X-ray, gives certain general considerations in regard to it, discusses the apparatus for its production, and finally describes the methods and practice of skiagraphy.

The Third Section embraces the physiological action of the X-ray, the general principles of radiotherapy, and the details of the treatment of sarcoma, carcinoma, skin affections, and diseases characterized by disturbances of metabolism.

This treatise is characterized by the thoroughness with which it goes into practical details and is therefore a most useful book for those who desire to learn the minutiae of practice in these rapidly developing methods of diagnosis and therapeutics. There is but little of the theoretical between the covers; and none of the far-fetched and transcendental hypotheses, which have been too commonly exploited among the advocates of electricity, appear on its pages. The author is rather too conservative, for fear of reproach of commercialism, in avoiding the mention of manufacturers. The employment of electricity in medicine is so dependent upon perfection of apparatus that when a certain machine or

appliance is recommended the reader naturally desires to know where it can be obtained—a wish not often gratified in the book. Dr. Snow's contribution can be highly commended to those who are interested in his specialty. The book is well printed, copiously and well illustrated, and has a sufficient index.

GLENTWORTH R. BUTLER.

AMERICAN TEXT-BOOK OF SURGERY. For Students and Practitioners. By Phineas S. Conner, M.D., Frederick S. Dennis, M.D.; William W. Keen, M.D.; Charles B. Nancrede, M.D.; Roswell Park, M.D.; Lewis S. Pilcher, M.D.; Nicholas Senn, M.D.; Francis J. Shepherd, M.D.; Lewis A. Stimson, M.D.; J. Collins Warren, M.D., and J. William White, M.D. Edited by William W. Keen, M.D., LL.D., F.R.C.S. (Hon.), and J. William White, M.D., Ph.D. *Fourth Edition, Thoroughly Revised and Enlarged*. Phila., N. Y., and Lond., W. B. Saunders & Co., 1903. 6 l., 1,363 pp., 23 pl. 8vo. Price: Cloth, \$7.00; sheep or half morocco, \$8.00.

Among the series of American Text-books this book was the pioneer. It is eleven years since the first edition was given to the profession. A comparison of the first and fourth editions adequately demonstrates the brilliant progress made in surgical pathology, diagnosis and technic during the past decade. Notable among these advances is the progress chronicled in Diseases of the Gall-bladder and its Ducts, Surgery of the Pancreas and Examination of the Blood.

In this edition all of the chapters have been more or less modified and some have been entirely rewritten. Not alone have there been extensive revisions, but there have been added six new chapters, which make the work altogether a complete and scholarly exposition of modern thought.

WILLIAM FRANCIS CAMPBELL.

A COMPEND OF DISEASES OF THE SKIN. By Jay F Schamberg, A.B., M.D. *Third Edition*. Phil., P. Blakiston's Son & Co., 1903. 291 pp. 12mo. Price: Cloth, \$0.80.

This third edition of the above work takes good rank as compared with the rest of its class, naturally not in itself a high one. It would seem to serve well the indications for its use, as a "vade mecum" for the student and particularly as regards arrangement, classification, etc., for the school in which the author is the teacher.

The illustrations are plentiful, some of them quite good, and help out the text, which is not always the case in these works.

S. S.

PRACTICAL MEDICINE SERIES OF YEAR BOOKS. August, 1903. Vol. IX. Physiology, Pathology, Bacteriology, Anatomy, Dictionary. Edit. by W. A. Evans, M.S., M.D.; Adolph Gehrmann, M.D., and William Healy, M.D. Chicago, Year Book Publishers, 1903. 233 pp. 12mo. Price: Cloth, \$1.25.

This octavo of 233 pages, including the index, is well gotten up in point of printing, etc., and is full of useful information. It is well adapted to the needs of busy men, who may often have occasion to look up the recent theories and facts of physiology, pathology, and bacteriology, but who cannot afford the time to wade through large works, or who have no access to them. The glossary is well selected and pretty complete. The moderate cost should bring this book within the means of every practitioner.

JOSHUA M. VAN COTT.



# BROOKLYN MEDICAL JOURNAL

VOL. XVIII.

BROOKLYN-NEW YORK, MARCH, 1904.

No. 3.

## ORIGINAL ARTICLES.

### A STUDY OF THE CLIMATE OF LONG ISLAND.

BY WILLIAM H. ROSS, M.D.

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The proximity of Long Island to the greatest center of population in this country, and the increasing use of its territory as a resort and place of residence, make valuable any study of its climatic features.

Though Long Island is one of the oldest settled portions of the United States, little seems to be known of its healthfulness by the medical profession in general. Medical men who have been everywhere and who know everything have never been on Long Island nor know anything about it. It is often thought to abound in marshes, malaria, and mosquitoes. Practically the opposite is true. It is for the most part a dry sandy plain, rising gently from the south shore to the north, and terminating in a bluff, with beautiful bits of scenery on land, and magnificent views at sea. To the north, the distant hills of Connecticut, and to the west the palisades of the Hudson can be seen, and to the south the waters of the Atlantic in all of its grandeur.

Through the center of the island is a range of hills from 100 to 400 feet in height. Between the bluff and the central hills is an elevated plain of fertile soil supporting a growth of deciduous trees, many of the old ones of large size. South of the central hills, sloping to the water with a fall of about twenty feet per mile, is an almost unbroken sandy plain covered by a pine forest. Along the south shore lies the Great South Bay, from two to five miles wide and one hundred miles long, and separated from the ocean by a sandy bar averaging one-half mile wide—varying in width by the force of violent storms.

There are two navigable rivers on the island, and a number of small inland lakes of fresh water; especially in the eastern half; some of these have no visible inlet or outlet.

The central part of the island, only fifty miles

from New York City, is yet largely an unbroken forest, except for the small villages, and is in such a state of nature that hundreds of wild deer inhabit its more remote portions.

Long Island, as you know, lies about twenty miles off the New England coast, separated by that inland sea, Long Island Sound. It is approximately fifteen miles wide and one hundred and twenty miles long, containing nearly 1,000,000 acres, and yet, with only 1,682 square miles of territory, it has two hundred and fifty miles of water front, counting the Sound, its bays, and the ocean. It is the only considerable portion of the Atlantic coast entirely surrounded by water, and receives all its attendant influence, diminishing the difference between the temperature of winter and summer, and day and night.

#### FORMATION.

Long Island is of glacial formation. The greater part consists of sand and gravel and occasionally a layer of clay, overlaid with drift, growing thinner toward the south shore. The drift proper is a heterogeneous mixture of sand, gravel, clay, and, at the western end, bowlders. Under this is a deposit of coarse yellow gravel and sand, brought to its present place by glacial action, but existing in a stratified condition before the arrival of the glacier. This yellow gravel and sand drift in a comparatively unaltered state forms the soil of the pine barrens of the region south of the central hills. At the western end of the island the glacial drift proper attains its maximum depth, and diminishes toward the eastern end, its average depth for fifty miles being not more than three or four feet.

The strata underlying the drift contain at the western end of the island many rocks tilted at an angle and identical with the formation of Manhattan Island. A large amount of sand and gravel, increasing in amount toward the eastern end, and in places strata of clay are found. The clay underlies white laminated sands, and under these again are layers of clay and layers of sand, the sand largely predominating. Wells bored at different parts of the island show that under the sandy loam, varying in depth from an inch or two to

three feet, the soil is made up of stratified layers of sand and gravel, with an average of not more than three feet of clay per hundred feet. My own specimens from several places show no clay to a depth of one hundred feet; in other places only three feet of clay was found to a depth of two hundred feet. In one well near my home vitrified clay to a depth of six feet was found fifty feet under the surface, but except thin layers of clay at varying depths—due probably to glacial folding—only laminated sand and gravel is found to a depth as deep as the deepest wells have been made.

The clay strata under the surface of the island dip toward the south, falling about ten per cent. as shown by the ground water level, but thrown into numerous folds, pitched at varying angles.

The stratified sands and gravel which overlie the supposed Cretaceous and Tertiary beds contain fossils which determine their age beyond question. Their high elevation must be due to their having been raised to their present position by glacial action. The pressure of the ice sheet threw into a series of folds the stratified sand, gravel, and clay, and then pushing onward rode over them, carrying an immense mass of sand, gravel, and debris from New England and New York.

It is probable that Long Island Sound was a body of water—an arm of the sea—previous to the arrival of the ice sheet, for opposite the narrowest parts the glacial drift on the island is greatest, and least opposite the widest part, where the ice sheet lost the greater part of its glacial drift.

Of course many changes have occurred on the island since the retreat of the glacier. These are mainly on the surface and in the coast line. The swift westerly currents are wearing away the eastern end and depositing it along the shores. The bays are slowly becoming shallower.

It can be shown by a study of its geology that the island is made up mainly of sand and gravel and thin strata of clay, dipping from north to south. Its ground water currents must therefore flow from north to south, and its drainage in the same direction. Wells located to the north of a dwelling will therefore be less liable to contamination than if located on the opposite side; and cesspools located on the south side of a residence will be less liable to contaminate the wells than if their position were reversed.

The character of the soil modifies the climate in respect to fogs. They are more frequent over wet clay soil than over a dry, well drained soil,

such as the sandy soil of Long Island. Old Greenwich village in New York was traditionally healthy, and this region is so to-day. Epidemics that attacked the old city one hundred years ago found no lodgment in Greenwich. This has always been attributed to the fact that the underlying soil to the depth of fifty feet or more is pure sand, and provides excellent drainage. The same condition prevails on Long Island, with the difference that instead of the sand being fifty feet deep it is several hundred feet deep.

The water of the island is very pure. Because of the character of the soil it is freer from organic and inorganic material than wells of other regions not having a sand and gravel soil. There are a great many never-failing springs coming up from the sand along the shores, and in the Nissequogue valley, with a temperature of about fifty degrees the year round, and even in the highlands and in the shady forests, are numerous ponds, all of them sending forth streams of clear, cold, sparkling water.

The existence of the fresh water lakes referred to as having no inlet or outlet depends on the fact that a basin has been formed in the clay stratum by glacial folding. These necessarily fill from the ground water, and remain pure because of the water filtering through the sand.

#### TEMPERATURE.

During the decade 1890 to 1900, a consecutive period of 3,650 days, the writer made at Brentwood, situated in the pine belt, about in the geographical center of the island, daily observations of temperature, wind direction, precipitation, relative humidity, character of day as to sunshine and other meteorological phenomena, and the following deductions in this paper are made from those records:

The mean summer temperature is 70°. The mean winter temperature is 30°. The mean yearly temperature is 51.8°. For comparison I may add that the mean yearly temperature of the entire State is 45°; of Nantucket, 49.5°; New York City, 52°, and Atlantic City, 52.7°. The annual range of temperature of Long Island is 39°, while the annual range for the whole country is from 64° to 77°. It is least at the eastern, and increases toward the western end of the island. The average temperature of the island for the month of July is three degrees warmer than Nantucket, and for January three degrees cooler; but there is a difference in relative humidity of 7¾ per cent. in favor of Long Island, and the difference in the theometric readings is



practically obliterated because of the drier atmosphere. The temperature of Suffolk County, the eastern portion of the island, averages in summer 5° cooler than New York City. The temperature of this portion of the island in summer is almost the same as that of northern New York and New England, while its temperature in winter is about that of central New Jersey.

The winter temperature of Suffolk County is higher by 16° than the rest of New York State. The difference is undoubtedly due to the modifying effect of the ocean, giving heat during the winter and coolness during the summer. When the winds are from the south or southwest the eastern and southern portion of Long Island may be affected by the influence of the Gulf Stream, which, having a yearly temperature of 73°, can communicate to the coast heat sufficient to modify the climate.

Dr. E. T. Turner, Meteorologist to the New York Weather Bureau, says that the nearest approach to a maritime climate along the coast is eastern Long Island. One noticeable feature of this is the retardation of the seasons, amounting to nearly three weeks. The change from one to another is gradual, a valuable feature for the debilitated, for the more gradual the change from season to season the less injurious is the effect. The time of the first killing frost is fully three weeks later on the eastern than on the western end of the island.

#### HUMIDITY.

One of the most striking features of the climate is its low relative humidity, especially in the pine region. It is lowest in winter and spring—during the cold months—the reverse of that which occurs inland. This peculiarity is due to the more moderate heat and cold of the island, and to the southwesterly winds in summer.

The average yearly humidity is 72.75 per cent., while Atlantic City is 80.5 per cent.; Block Island, 84.5 per cent.; Nantucket, 80.5 per cent.; San Diego, Cal., is 69.5, only 3 per cent. lower than that of Long Island. The entire State of New York is 75.5 per cent. The influence of a low relative humidity for those seeking relief from chronic inflammatory troubles should be given considerable prominence.

#### SUNSHINE.

Probably the most valuable feature of any climate is the amount of sunshine. Its general tonic effect leads to an increased vitality. The amount of sunshine on Long Island is greatest in the pine forest region at the eastern end and southern

shore. The average number of clear days is 72 more than New York City, 90 more than Nantucket, and 120 more than the western part of the State.

Including all days on which the sun shines all day or a part of the day sufficient to permit exercise in the open air, the eastern half of the island has an average of 300 days, 40 more than Atlantic City, 60 more than Narragansett Pier, 104 more than Nantucket, only 12 less than Denver, and 30 less than Phoenix, Arizona; El Paso, Texas, and Los Angeles, Cal.

Long Island, in a surprising way, ranks high among other places having a wide reputation in this feature of climate, which has perhaps the greatest influence of all upon the invalid.

#### WIND DIRECTION.

The influence of the wind direction upon the climate of the island is only understood when we realize that Long Island is really far out at sea, in position approaching a right angle to the mainland. It is so placed that it has 140 miles of longitude and only 37 miles of latitude. (Trask.) The wind direction in summer is from the south and southwest, from off the Atlantic Ocean. The whole length of the island meets it at nearly a right angle, and as the heated air rises the breeze, cooled by a large expanse of pure water, blows in to take its place. It commonly penetrates eight or ten miles inland through the whole evergreen forest region, or until it meets the central hills. This is the prevailing condition for six months of the year. In winter the prevailing wind is from the northwest, and produces a continental type of climate; but often there are considerable periods when the wind direction is from the southwest, and Long Island again enjoys the tempering effect of the ocean.

#### PINE FOREST.

The pine forest of the island occupies the portion between the central range of hills and the south shore, six to eight miles in width, and extends for sixty miles through the whole length of Suffolk County. The trees are nearly all of the yellow pitch pine variety. There is no other evergreen forest of equal size in the State of New York short of the Adirondacks. (Winfield.) Evergreens are indigenous in all this region. Any cultivated spot abandoned a few years springs up in a thick growth of pines. The whole region is filled with a balsamic odor very noticeable to one not accustomed to living here. The soil, as in all pine wood regions, is very sandy, insuring dry-

ness and excellent drainage. The belief in the favorable influence of the pines in pulmonary and other affections, and in convalescence from all acute diseases, is general among physicians.

The late Dr. A. L. Loomis, in an article on "Evergreen Forests as a Therapeutic Agent in Pulmonary Phthisis," says that aseptic air has a less powerful curative effect upon suppurative processes than air in which the aseptic condition is due to the persistent presence of some antiseptic agent of sufficient power to destroy existing septic germs.

Evergreen forests have a powerful purifying effect upon the surrounding atmosphere, rendering it antiseptic by the chemical combinations which are going on in them.

The clinical evidence of the beneficial effect of pine forests on phthisical subjects is unquestionable. The changes attributable to the persistent inhalation of air impregnated with the emanations of such forests are such as to indicate that the atmosphere is not only aseptic but antiseptic—made antiseptic by some element which is not only fatal to germ life, but at the same time is stimulant and tonic to normal physiological processes within the lung. This element Dr. Loomis believed to be the peroxide of hydrogen formed by the atmospheric oxydation of terpentine vapors.

Adding to the effect of the pine forest the aseptic ocean air—which for more than six months of the year is carried through the entire pine district, making in addition the temperature cool and more equable—the sandy soil, the effect of the low relative humidity, the large amount of sunshine, Long Island presents climatic features in its pine forest region not surpassed by any place along the Atlantic coast.

The therapeutic elements desired in a climate are pure air with freedom from organic and inorganic material and without excessive dampness, an abundance of sunshine, a sandy soil and an equable temperature. All these Long Island possesses, and in addition the antiseptic elements in the emanations from its pine forest, and the bromine and iodine in its ocean air. Man is essentially modified in his vitality by the influence of climate. Those who live in a good climate possess greater longevity and present greater resistance to disease. Dr. Winfield, of Brooklyn, says that a physician of national reputation once observed that the two healthiest counties in the United States were Suffolk County, L. I., and Berkshire County, Mass. The mortality statistics of Long Island prove its claim to climatic su-

periority as evidenced in the longevity of its inhabitants. In my own township in the year 1903 there were 141 deaths from all causes, including infancy. Of these 11 per cent. were between 80 and 100 years; the average age of the 11 per cent. was 86 years. In Suffolk County during the fiscal year ending July 1, 1891, there were 770 deaths, the average age being 62 years; 526 of the 770 were between 70 and 90 years, and 17 were between 90 and 100 years.

In the years 1885-86-87 there were 3,935 deaths in all of Long Island of those over 20 years of age; 1,394 of them were between 70 and 90 years; 642 between 80 and 100 years; 111 between 90 and 100, and four over 100. This is a remarkable showing. I am not aware that it is equalled by any other place in the country.

The climate of Long Island is favorable because of its low altitude in increasing functional activity of circulatory organs; in convalescence from acute diseases, and in surgical diseases to accelerate tissue change; for all invalids who cannot bear great changes of temperature; for pulmonary tuberculosis, because of its pure air, equable temperature, and evergreen forest; for neurasthenia, nerve exhaustion, and allied nervous troubles requiring relaxation, because of its strikingly sedative qualities, and particularly valuable in insomnia due to nervousness. People who come to central and eastern Long Island are always surprised at first at the increased amount of sleep induced. The atmosphere is always described by one experiencing it for the first time as invigorating and quieting. Among native Long Islanders tuberculosis is one of the rarest diseases, rheumatism is scarcely more frequently met, malaria does not exist except in some sections at the western end.

When Long Island is fully understood, and medical men become familiar with its natural conditions; its sandy soil, favoring sanitation and modifying heat and moisture; its equable and relatively cool climate tempered by the aseptic and antiseptic ocean air, and influenced by the antiseptic emanations of its pine forests; its low relative humidity; its large amount of sunshine; its pure water supply;—that it is the only considerable portion of the Atlantic coast entirely surrounded by water;—that it is a pier with all these natural advantages extending one hundred miles into the Atlantic Ocean and attached to the greatest city in America—when medical men become familiar with all this, Long Island will reach its manifest destiny, and become one great health resort.



THE TREATMENT OF FRACTURES.<sup>1</sup>

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In the rapid progress of surgery, and in the fascination presented by the new discoveries which have developed during the Listerian epoch, the treatment of fractures has received but meagre consideration. While the rules are well defined and elaborated, the practical points in technique are but sparingly presented in surgical text books. The treatment of fractures requires, besides knowledge and experience, a peculiar talent which is found in the general practitioner as well as the surgeon. This talent is made up of mechanical instinct, patience, perseverance, and a disposition to be satisfied with nothing but the best.

In the treatment of a fracture it should be borne in mind that we are dealing with a wound, a lacerated wound of bone, which in its pathology and treatment is amenable to the same laws which govern wounds in other tissues. A fracture is necessarily associated with rupture and injury of blood and lymphatic channels, not only in the bone itself but also in the periosteum and surrounding soft tissues. In the case of fractures of long bones this injury to the vessels of the soft tissues is very considerable. Blood and lymph escape from the torn vessels, and exudation of serum and leucocytes takes place through the walls. This exudation occurs from vessels (1) which have been directly injured by the fracturing force, (2) which have been irritated by fragments of bone, (3) which have been injured by stretching or distortion, (4) which have been irritated by the fluid poured out of the injured vessels, or (5) which have become dilated through local vaso-motor paralysis from injury to their nerves. From these damaged vessels there at once begins an exudation of serum and blood cells, and the surrounding tissues become infiltrated with the products of this traumatic inflammation. The conditions here are comparable to those of a wound of the soft parts; and here, too, will the healing be influenced by the absence or presence of infection, by the niceness of the reposition of the wound surfaces, by the perfection of the immobilization of the wound, and by the nutrition of the parts.

This exudate undergoes the changes of wound exudate. The fluid is absorbed, and the new

round connective tissue cells become converted into spindle cells, which form a network with the shreds of fibrin. The exudation involves, in a greater or lesser degree, the surrounding muscles, nerves and vessel walls. The exudate immediately about the bone ends is so prolific that when its fluid has been absorbed, and the new connective tissue has contracted down, it forms a firm mass of scar tissue, which becomes infiltrated with osteoblasts and converted into bone.

These conditions require to be treated the same as in any other wound. In simple fractures the asepsis of the wound is already secured. We have, therefore, to look to the next important steps in wound treatment—coaption, immobilization, and protection. That means, in the parlance of fractures, correction of displacement, fixation, and protection from mechanical disturbances. The surgeon has to consider in this treatment not only the wound of the bone but also the lesions of the soft tissues.

While the expedients for facilitating diagnosis are not a part of this discussion, a plea for more accurate diagnosis is urged. The surgeon should have before his eye a picture of the bony wound. This is the first step in the treatment. There is nothing that will contribute more to his peace of mind than to have a positive conception of just what he is treating. Time and pains in making a satisfactory diagnosis are well spent. The value of comparison of the injured limb with the sound limb cannot be emphasized too strongly. The X-ray has become an indispensable adjunct.

It may be laid down as a general rule that the reduction and immobilization of a fracture should be done at once. Delay increases the infiltration of the surrounding tissues and adds to the spasticity of the muscles. The correcting force should be applied gently, firmly, and gradually increasing until the desired result is secured; not quickly and abruptly.

Here the personality of the surgeon is displayed. Gentleness with firmness, and tenderness, that will be satisfied with nothing short of normal apposition, are the qualities that make for the best results. It is always on the side of wisdom to have an assistant. This is particularly the case in the fractures of the lower extremity, in which the assistant can make counter extension and render assistance in supporting the limb.

General anesthesia is too little employed. It is of aid in diagnosis and in the reduction of deformity by overcoming two chief obstacles, muscular contraction and pain. Judgment is required in the determining of the advisability of its employment.

<sup>1</sup> Discussion presented before the Associated Physicians of Long Island, January 23, 1904.

The writer has seen it neglected when it was eminently indicated; and he has seen it used when it could add nothing further to the diagnosis, when not at all called for in the treatment, and when it did nothing but add to the general confusion and exaggerate the importance of the injury.

Ordinarily the reduction of a fracture is simple and satisfactory, but there are certain obstacles which may intervene. The muscular contraction may be so strong that it resists the combined efforts of both surgeon and assistant. A second obstacle is great pain. The anesthetic overcomes both of these. The splint material should be at hand to apply while the patient is still relaxed. Tenotomy and the subcutaneous division of muscle are necessary only when muscle or nerve are irritated by displaced fragment of bone or other irritating material. Normally the muscles lying along the bone are long enough to permit of the reduction of any fracture. It is irritation which causes them to contract, and prevents reduction. When the fracture has been perfectly reduced this irritation is overcome, so far as the bone fragments go, but is continued by the presence of the blood and exudate, and is necessarily present in a greater or lesser degree. There are many expedients for rendering the muscles less irritable. Among these may be mentioned the administration of sedative drugs. Compression of the artery supplying the limb will often cause the muscles to relax. The same principle of producing anemia by the Esmarch bandage may be employed. The injection or the infiltration with cocaine of the nerve trunk supplying the contracted muscles is often of value. Stimpson's method of tiring out contracted muscles by making continuous extension against them cannot be recommended. Immediate and complete reduction is the thing. To apply continuous extension to the fragments of the femur, with the expectation that in a few hours the muscular resistance will be overcome, is usually encouraging a false hope. The surgeon should not rest until the reduction is effected. My experience has shown that if a given weight does not correct the deformity in a few minutes, it never will. Every minute's delay with the displacement uncorrected is adding to the infiltration of the muscles and decreasing their elasticity.

An important obstacle to reduction, which is often mistaken for muscular resistance, is the interposition between the bone fragments of muscle, clot, periosteal tissue, fascia, or loose fragments of bone. I have seen forty pounds of extension applied to a fractured femur, and the

overriding and displacement not perceptibly influenced, because of the interposition of a bundle of muscular tissue between the fragments. When a satisfactory reduction cannot be effected because of these things, the best surgery demands the operative exposure of the fracture and the removal of the hinderance to reduction. It may be borne in mind, however, that if no infection is present, or the fracture is a simple one, none of these obstacles, although they will retard it, will actually prevent the osseous union of the fragments, for they are all capable of being incorporated in the callus, and infiltrated with bone tissue. One of their objections is that they render immobilization more difficult, and thus conduce to non-bony union.

The following proposition cannot be too strongly emphasized: The reduction and immobilization of fractures should be attempted as soon as possible after the accident. Time should not be wasted with the vaunted fomentations and lead and opium waters. If a fracture with overlapping has been allowed to go uncorrected, the infiltration with exudate of the surrounding tissues so rapidly destroys their elasticity that reduction without operation may soon become impossible, nor may the surgeon expect to overcome the resistance by general anesthesia. Finally, the more motion and distortion that takes place before final immobilization is applied, the greater will be these difficulties. Herein lies a plea for the gentle handling of fractures.

Before proceeding further with the treatment of a fracture the condition of the skin should be looked to. Serous blebs should be snipped with scissors at their most dependent part, and their fluid evacuated. The overlying skin need not be removed, but should be covered with a bland antiseptic powder or ointment on a few flat layers of dry gauze. Excoriations should be covered in the same way.

When a limb can be washed without disturbing the fracture the skin should be cleansed. This operation cannot be recommended in all fractures because of the mobility between the fragments which it entails. However, in cases of fracture of one of two parallel bones, or in cases of limbs where the skin is particularly unclean, or in the presence of threatening perforation of the skin, it is indicated. The surface should be examined for prominent points of bone which might penetrate and render the fracture compound. If such a point is discovered, further manipulation should be resorted to with the view of securing a more perfect reduction. This condition is not infre-



quently observed in fractures of bone covered only by skin, such as the anterior border of the tibia. When a perfectly satisfactory result cannot be effected, the danger of penetration of the skin may be lessened by applying a compressing pad of gauze. Care should be taken that the compression is not made on the threatening point, but above or below, over the bone with which it is connected.

In the application of plaster-of-Paris dressings the following practical suggestions are offered: The dressing of a fracture of a lower extremity should never be attempted on a soft bed. The best bed for this purpose is one that is narrow and having a thin mattress resting on boards instead of springs. The patient should lie recumbent and relaxed, and not be permitted to watch the operation. There is a very prevalent notion that a plaster cast should not be applied to a fractured limb until the subsidence of the traumatic swelling. As a matter of fact this swelling is largely due to imperfect immobilization, and will stop as soon as the limb is properly encased in a plaster dressing. I have no hesitancy in applying a plaster bandage to a fracture of both bones of the leg immediately after the accident and before any swelling has developed. If the fracture of the tibia is an oblique one there will be overriding. This is overcome by the assistant who makes traction, while another assistant stands opposite, supports the leg, and rubs smooth the bandage. The foot, at a right angle, and the bony prominences of the knee furnish the two points of purchase which hold the leg in traction against the muscles after the plaster has hardened. By the time the last bandage is applied the cast should be firm enough to support the leg. This is the ideal dressing for this fracture.

If the person applying a plaster dressing is skilled in its use the best covering for the leg is a seamless white cotton stocking; for the arm, the sleeve of a cotton undershirt; or for either, the elastic tubular jersey sleeving. In the application of this bandage to the leg a four-inch plaster bandage should be started first about the site of fracture. It is a disadvantage and a common error to begin the bandage at some other place, or to use a narrower bandage. The most important point in the application of this bandage is that it should lie perfectly flat, free from wrinkles, each turn applied with the same degree of pressure, and neither edge of the bandage tighter than the other. When a point is reached in applying this bandage where a reverse would naturally be made, a more satisfactory result will be secured if

instead of making the reverse, the bandage is cut at this point and a new start is made. If this practice is followed throughout the application of the bandage, a dressing free from folds is secured. A wide bandage also should be carried over the knee. A narrower bandage is now used. This envelops the foot, ankle, and rest of the leg. For the outer bandage, to fulfill the best aesthetic indications, a selva bandage, not wider than two inches, is to be preferred. In the application of this also, the above mentioned method of dividing the bandage instead of making reverses should be followed. When no extension is required the assistant, who supports the limb, grasps the free end of the toe of the stocking or the redundant portion of tricot tubing, which extends beyond the toes, while with the flat of the other hand he supports the site of fracture. The bandage is strengthened, and a smaller amount of material required, if a few longitudinal strips or very obliquely applied spirals are incorporated, and each layer well rubbed in by the moistened hand. When desired, such a dressing may be materially strengthened by incorporating a few strips of paper, thin wood shavings, or perforated strips of thin metal.

The poorest plaster bandages to which we have access are the bandages of the shops. These are made of crinoline, which are rich in stiffening made of starch or glue. The best bandages are those which the surgeon can make himself. The materials for these bandages should be made of crinoline which has been washed to remove the stiffening, dried and cut into desired widths and lengths. Into the meshes of this is rubbed dehydrated, dental plaster-of-Paris, and the bandage loosely rolled. To hasten hardening of these bandages they should be used in hot water containing about half an ounce of table salt to the quart.

While it is impossible to lay down rules, most plaster casts applied outside of hospitals are from two to four times as thick as necessary.

When it is desired to cut a fenestrum for the exposure of a wound, it is recommended to cover the wound with several thicknesses of small gauze squares, but slightly larger than the wound, and a larger square of oiled silk. The plaster dressing is then applied over a smooth surface, there being practically no dressing on the wound, and immediately, while the plaster is still wet a fenestrum is cut with a sharp scalpel. An ordinary knife will not answer. A good plaster dressing under these circumstances cuts almost as easily and smoothly as cheese. The cut

edges are smoothed, the oiled silk turned over them, the gauze removed, and the wound treated with a proper surgical dressing. When large fenestra are to be cut the cast may be strengthened by the methods mentioned above. By incorporating two strips of iron, I have been able to cut away the entire circumference of the cast excepting the width of the iron strips. The best materials for rendering a plaster splint waterproof are copal varnish or water glass. This is often indicated in the cases of young children. The important thing is that the inside of a plaster cast shall be free from irregularities and that the pressure that it makes shall be smooth and even. I have frequently examined the inside of plaster casts after their removal, and the unevennesses and ridges which have been observed were not the cause of trouble for reasons which bore testimony to the great vitality of the tissues.

After the application of any permanent splint the patient should have a feeling of comfort in the limb. If there is persistent pain he should not be encouraged to believe that it will subside, but the surgeon should know that there is something wrong, and the cause of the pain should be sought. Usually, if it has to do with the splint, it will be found that the injury of the bone and soft tissues is responsible. Pressure upon a nerve by a fragment of bone is a common cause of persistent pain. If this cannot be removed by manipulation to effect better reposition, it should be exposed by operation and corrected. Much has been said against the use of plaster, but most of the words that have been uttered have testified to the lack of skill in its use. In unskillful hands it is capable of much harm.

When a lighter dressing will answer we may use crinoline or the ordinary gauze bandage, impregnated with silicate of soda or stiffened with starch paste. Or the silicate of soda may be used in solution in the form of water glass. Either of these materials lend themselves to the making of bandages, and are too little known and employed.

A plaster cast or splint of the above materials may be cut down either on both sides of the limb, or in front and behind, and converted into a removable splint. Such a splint is indicated when it is desirable occasionally to inspect the limb. The splint may be cut when it is still wet, the edges smoothed down, and, after it has sufficiently hardened, the two halves removed. If a narrow strip is cut from between those two halves it will be found that the splint will fit more snugly and will not be too large when the usual atrophy of the limb takes place. I have sometimes finished the edges of

these splints by binding them with a narrow strip of the same material. These halves are easily removed and reapplied, being held in place by a few turns of bandage.

When the tendency to overriding persists, in the case of the femur, and in oblique fractures of the shaft of the humerus, and of the two leg bones, continuous extension becomes necessary. The best material for the side straps is adhesive "mole-skin." In the treatment of fracture of the thigh this adhesive material is usually made too narrow. A good plan is to use a strip about five inches wide, which is cut into obliquely in such a manner as to give the effect of a series of straps diverging from a central strip. One of these on either side of the leg should extend fully as high as the fracture, and should be folded under and leave the skin at the middle of the leg. Or each strip may be divided into three longitudinal strips, the middle one of which is applied parallel with the leg and the two others obliquely. The side strips having been applied and retained by a flannel bandage, the weight and pulley apparatus should be adjusted, and weight added before splints are applied. If the soft structures are not too thick, the fragments can be felt to slide into place, and weight should be added until satisfactory position is secured. In the adult this requires from fifteen to forty pounds, and in the child of ten years from ten to twenty-five pounds. A common error is the employment of too little weight. The time to apply the maximum weight is immediately. An additional five pounds on the first day will do what ten pounds will fail to do five days later. I have seen the attendant measure the limbs and order five pounds more weight, repeating this two or three days later, and still again until ten or twenty days had elapsed before the last addition of weight was made. This is not good surgery. It should always be borne in mind that the thigh bone has a natural curve with the convexity forward, which in some individuals is pronounced.

The general principles in the comparative measuring of limbs are well known. There is one point to be called attention to: it is better to measure by the sense of sight than by feeling. To hold the end of a tape measure in one hand and apply it to the anterior superior spine of the ilium while the other hand applies it to the inner malleolus, is to invite inaccuracy. The blunting of the tactile sense by having the measure between the finger and the point sought for, and the skin over these two points moving about so easily, contribute to error. Moreover, however honest the surgeon may be, when the first limb is measured,



the human mind is not capable of being uninfluenced by this measurement in measuring the second limb. This invites inaccuracy of which the mind is unconscious. The impartial and scientific way to make this measurement is to seek out with the fingers a certain point of the anterior spine, say the most anterior or the most superior, and mark the skin directly over this point with ink or pencil. The same thing is done systematically and carefully on the other side. This operation is repeated over the malleoli. When the tape is applied the surgeon does not again use the sense of feeling, but measures between these two points by the aid of sight alone. If he pleases a line may be held connecting the two anterior superior spine marks, and the middle of this line used for the upper fixed point.

The use of the Thomas knee splint and of the Thomas hip splint in the treatment of fractures of the lower extremity I regard as a valuable adjunct to the therapeutics of these lesions. They are indicated in cases in which it is desirable or imperative that the patient should be up and about or not treated in the recumbent position. The ambulant treatment of fractures was discussed by myself in papers published in 1898.

When adhesive strips are applied to the skin to retain splints, the best results will be secured if the precaution is taken to have them not encircle the limb, but applied obliquely or stopped short of a complete circle.

In the treatment of the fractures of the thigh in children, I wish to bear testimony to the value of perpendicular extension of the leg, and to the double Hamilton splint in very young children. Vertical extension is particularly valuable in fractures in the upper part of the shaft. In fractures of the thigh in the new-born, I have used with satisfaction a method originally suggested to me by Dr. G. R. Fowler, consisting in strongly flexing the thigh upon the child's abdomen and holding it there, splinted to the body, by an adhesive strap and a band.

Various expedients contributing to the comfort of these patients are a part of the store of information of the general practitioner. Fastening the weight-pulley to the wood-work of the wall when the position or construction of the bed renders it necessary or expedient, may be resorted to. In fracture of the humerus, the use of a weight, to be hitched to the arm when the patient is up, and a pulley extension with the same weight when lying in bed, is well known.

In some fractures, despite the best efforts, the fragments cannot be brought into satisfactory ap-

position. When all other resources have failed, the well-equipped surgeon is always justified in exposing the fracture, and applying such local treatment as the condition requires. The incision of operation often liberates an amount of blood and serum, the presence of which has been an obstacle to reduction. The removal of soft tissue which has fallen between the bone ends can then be accomplished. Often nothing further is required. When the surgeon feels that neither splints nor extension will hold the fragment in place he should proceed to the direct fixation of the bone ends.

In dealing with comminuted fractures, with irreducible displacement, after extension, manipulation, anesthesia, and tenotomy have failed, the same general principles as before stated apply. Here the surgeon often has to do with loose fragments of bone which have become entirely separated, and often so displaced as to form the chief impediment to reduction. Such fragments may either be replaced, or, if not too large, removed.

The involvement of a joint by a fracture adds another element of importance. Here there is an effusion of blood and serum into the joint, and the traumatic exudate about the line of the fracture causes the formation of plastic exudate upon the synovial surface. If the joint is kept immobilized too long, the plastic material becomes adherent to the opposite bone surface, and the presence of serum may add to the amount of deposited material. The amount of this material is dependent upon the traumatism, or, in other words, upon the degree of separation and mobility of the fragments. Motion of the joint immediately after the injury increases the amount of exudate and effusion. The guiding principle, therefore, in the treatment of such fractures, is immediate and the most perfect obtainable immobilization. This should be continued until the traumatic reaction has subsided, and careful passive motion should be instituted as soon as is consistent with the measures applied for the immobilization of the bone fragments. The immediate application of cold will inhibit the effusion. After twenty-four or forty-eight hours, pressure by flannel bandage will often hasten absorption, and at the end of two or three weeks' massage, heat and pressure may be used. More harm is usually done by anxiety to secure firm bony union than by the too early employment of passive motion. In the first case ankylosis often results; in the latter case, if the motion is made gently and through a very small arc, the union of the fracture need not be injured. This is not only so in fractures involv-

ing joints, but also applies to fractures in the neighborhood of joints. I know of no fracture which is so universally over-treated by immobilization as the typical fracture of the lower end of the radius. When any splint at all is required, it should be left on only long enough for the fragments to become agglutinated, and motion of the tendons of the fore-arm should be continued after the first few days. If necessary the splint may be left on to protect the fracture, but the fingers should be left free to move. The thing to be guarded against here are adhesions of the tendons to their sheaths. This is particularly prone to occur in persons of advanced age or rheumatic tendency.

In the treatment of compound fractures modern surgery has made advances which are not exceeded in any other branch of surgery. In modern hospital treatment it has attained to a nearly perfect state. In the general practice outside of the hospital there yet remains much to be desired. This is not altogether for reasons reflecting upon the general practitioner. In the city within the precinct of a well-equipped hospital, the ordinary ambulance case of compound fracture enjoys the best possible chances that surgery has to offer.

In the treatment of this condition the first thing which the surgeon should have in mind is the wound, and the securing of its primary healing. With successful attention directed to this end, the fracture is quickly converted into a simple one. The fate of a compound fracture is largely decided by the first dressing. The surgeon may never hope by scrupulous later attention to atone for laches committed at this first dressing. In a general way we may lay down the following rules of treatment: When a compound fracture is first seen an attempt at diagnosis and treatment should not be made. The wound should be covered by a copious protective, preferably a wet antiseptic dressing, any extreme deformity corrected, temporary immobilization effected, and then carried to a place for dressing. If considerable time must elapse before the wound can be properly dressed, if in the correction of the deformity, or for any other reason, more foreign material will be worked into the wound, it should be irrigated before applying the provisional protective. The best place in the world for the dressing to be completed is in the operating room of an hospital; about the worst place is the patient's bedroom. Here the fate of the limb is decided. In a fracture with considerable mobility of the parts, or laceration of tissue, a general anesthetic should be given. It

is as important here as in the operation of laparotomy that the patient should be surrounded by the most scrupulous attention to modern surgical details in all that that implies. This having been provided for, the skin should be thoroughly scrubbed with warm water and soap for a radius of at least a foot from the wound. This scrubbing should involve every bit of skin, including wound edge. Soap suds will not hurt the wound. While the scrubbing is in progress, to keep the suds washed out, a stream of antiseptic solution is played upon the wound, or a small bichloride sponge held over it. The same skin is then washed with ether, alcohol or other fat-dissolving fluid, and finally with antiseptic solution. I desire particularly to state that outside of the hospital it is this cleansing that is usually defective.

After this, in the case of a small wound with but slight injuries to the soft tissues, the simple application of a wet antiseptic dressing of gauze, with immobilization, suffices. The small amount of discharge is provided for by the gauze, the wound becomes occluded by scab, and the fracture converted into a simple one. In no case should the wound of a compound fracture be sealed hermetically. In the case of a larger wound, with multiple fractures or laceration of soft tissue or irreducible displacement or the presence of foreign matter, the surgeon should freely enlarge the wound, or make such new wounds as shall give the best access for the treatment of these conditions. He should have in mind always the restoration of the parts as nearly as possible to their normal conditions. Fragments of bone, completely separated from their vital connections, should be removed unless of such size that their removal will shorten the limb beyond the point of usefulness. Under such circumstances they should be left with the hope that they may be free from infection. Bleeding vessels should be ligated, torn periosteum restored, divided nerves, muscles and tendons sutured. Drainage should be provided in the most dependent parts, and the rest of the wound closed. No dressing is better than gauze wet with 1-2000 bichloride solution. The most complete immobilization should be instituted, and the general comfort and quiet of the patient looked to. The elevation of temperature, following the absorption of blood products, should not mislead the surgeon. The drainage tubes should be removed as soon as possible. Usually all drainage can be dispensed with by the end of the first week. The escape of serous discharges from the tube is not an indication that drainage is necessary. Usually the tubes have



outlived their usefulness by the end of the third day. The sooner and more complete the immobilization of the bones the less will be the discharge. For this reason, if the limb can be put up in plaster at the first or second dressing, with large fenestra, it will be found that the serous discharge is less than when the immobilizing splints have to be removed at each dressing.

Every one who has had experience in this line of surgery has seen in what extreme degrees of laceration the tissues can be restored into place, and limbs saved, which at first sight seemed hopelessly lost. Even yet, however, the pessimistic impression of these wounds is responsible for the sacrifice of limbs. Here my observation leads me to believe that the hospital is not free from culpability. House surgeons should not be more appealed to by the prospect of a nice, well-rounded stump than by the prospect of a tedious series of dressings of a compound fracture. There is never an immediate necessity for amputation in a compound fracture in which there is a possibility that the limb may be saved. It is better to wait until the signs of gangrene have appeared than to amputate a limb which would not have become gangrenous.

The conditions arising in a compound fracture which justify amputation are, injury of the blood vessels, so great as to cause the death of the part; uncontrollable infection which is leading to a serious toxemia; and irreparable and wide loss of bone substance, so great as to render the limb useless. The operations of bone transplanting and grafting are overcoming this last condition.

In the treatment of fractures, unsatisfactory results still occur in the hands of the most careful and experienced. Without entering into a general discussion of this subject, we may say that usually two things contribute to this end, the first is a too great deference to the whims and present comports of the patient; the second is a division of responsibilities on the part of the two or more surgeons in attendance upon the case. In a young or healthy person, the intergity of whose limbs is a matter of importance, the surgeon should have as his prime object the securing of a perfect mechanical result, and the opinions and pleasure, and indeed the personal comforts of the patient should all give way to this end. When the surgeon is called to put up a fracture for another physician, and after that never sees the case again but leaves the further treatment to some one less competent than himself, or when circumstances are such that the case comes successively under the care of two

or three different surgeons, then the conditions are ripe for poor results and incriminations. One person and one alone should be held responsible by the patient, and this one should hold himself responsible, and should recognize no division of responsibility. He should have the full treatment in his hands. He may call in as much help and have as much counsel as he pleases, but he should either retain the full responsibility or defer to some one else. I have seen nothing but harm come from the violation of this rule.

In the case of old or infirm persons the fracture must be lost sight of. The general condition of the patient must take precedence, even at the expense of imperfect union.

The general principles in the treatment of delayed union and vicious union are too well known to need discussion.

As a final practical suggestion, attention is called to the apparent persistence of callus. When immobilization is imperfect an enlarged callus naturally develops. Otherwise persistent swelling should suggest overriding or osteo-sarcoma.

The modern treatment of wounds and the more exact methods of diagnosis entitle the patient to demand better results in the treatment of fractures than ever before. The surgeon is not to be satisfied with a poor result. He is now in a position to secure perfect apposition in fractures.

Notwithstanding the boldness which has characterized the surgery of the abdomen and brain, there is still a tendency to cling to the traditions in the treatment of fractures. This should not be so. The patient suffering with a fracture which is complicated by irreducible displacement or pressure, or injury to a nerve trunk, should not be deprived of the advantage which surgery now can offer him.

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#### INJURY AS AN ALLEGED CAUSE OF CERTAIN NERVOUS DISEASES.<sup>1</sup>

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The time allotted to read a paper in our Society is too short to permit of any full discussion of the subject which I have chosen, and my object is merely to refer to a few of the more common diseases of the nervous system which are alleged to be the result of traumatism.

I have no doubt that many of us have been surprised before now to be subpoenaed to court

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<sup>1</sup>Read before the Brooklyn Surgical Society, December, 3, 1903.

and find that some hospital patient on whom we had made a diagnosis of contusion of the shoulder and had discharged cured at the end of a week was suing some corporation for his injury, and had been examined by one or more (generally more) self-styled experts, who found that he had had a dislocation of the shoulder, which we had overlooked, as a result of which the patient had developed a chronic synovitis and complete degeneration of the circumflex nerve, or some other equally senseless allegation; and it is not at all uncommon for a jury to have to decide whether or not a case of Locomotor Ataxia or Multiple Sclerosis is due to injury. They have heard several physicians go on the stand and swear that it was, and that the injury was the sole producing cause, and they have heard the surgeon for the corporation go on and swear that, in his opinion, injury is never a sole cause, and that as a rule is all he is asked, because the plaintiffs in these cases would never be satisfied in bringing out what might be the fact, that the injury may have been a possible exciting cause.

A few of the more common diseases charged to traumatism, referring to the nervous system, are as follows: Multiple Sclerosis, Paralysis Agitans, Locomotor Ataxia, Traumatic Hysteria, Traumatic Neurasthenia.

I am thoroughly aware that most of these diseases belong to the neurologist; in fact, most of them are scarcely mentioned in our standard surgical works, authors apparently not considering them surgical affections. However, in the standard works on the nervous system you will find that trauma is given as a competent cause for their development, and that, together with the fact that surgeons living in a city like ours are constantly liable to be called to court in these negligent cases, which are now so common, I think I am safe in saying that they absorb at least two-thirds of the time that courts are in session. It is in these cases that the surgeon may have to express an opinion as to whether or not such and such an accident is a competent reducing cause for a certain disease of the nervous system. This renders the subject, in my judgment, sufficiently interesting to warrant our spending enough time to determine whether or not they can be classified as surgical conditions: in other words, whether or not trauma is a competent cause for their development. So, with your permission, we will briefly review the few diseases which I have mentioned, and these, I believe, are the most common of the diseases of the nervous system, alleged to trauma, which admit

of argument regarding the possible connection between the cause and effect.

*Multiple Sclerosis.*—This is a chronic disease of the nervous system characterized by the development of sclerotic patches, and no part of the brain or cord is exempt. It is most common by far between the ages of 20 and 35. The most frequent cause is infection; hence it is often spoken of as a post-infectious disease, as it may follow typhoid fever, pneumonia, malaria, etc., but it is the opinion of many that trauma is also a competent cause.

Now the question arises, What degree of trauma is necessary to result in a multiple sclerosis? and my answer is that it must be sufficient to excite some morbid process in the nervous system as a direct result of injury, such as a hemorrhage in the cord for instance, which may cause a disturbance that may prove to be the forerunner of a multiple sclerosis. Hence I would deny that a multiple sclerosis would develop as a primary disease from an injury, which was not of sufficient violence to cause some morbid change in the nervous system as a direct result of that injury. There is no regularity regarding the general symptoms of this disease, because there is no regularity regarding the distribution of these patches, but there are three symptoms which are usually present and quite characteristic:

1. Nystagmus is present in most cases.
2. These patients have a peculiar speech termed scanning. They speak slowly and pronounce each syllable separately.
3. They also have the Intention Tremor, which is almost characteristic of the disease. It is a tremor which manifests itself when a voluntary movement is attempted, especially if it is a movement requiring some precision, such as attempting to drink from a full glass of water, the tremor which amounts to a violent shaking continues until the arm is again placed at rest, when it ceases.

Now as regards this particular disease I am willing to admit that it may result from trauma, the degree of which was as I have above stated, but I am not willing to admit that injuries, which were so slight as to pass by practically unnoticed, are competent to result in a multiple sclerosis, which may not develop until several months after such injuries were received, and that is the class of injuries to which this disease is often ascribed.

*Locomotor Ataxia.*—This, as we all know, is one of the most common diseases of the nervous system. It is a chronic degenerative sclerosis, chiefly confined to the posterior columns of the



cord and posterior roots. It occurs far more frequently in males than females, the proportion being about ten to one (according to Gowers). It most commonly occurs between the ages of 30 and 40 years, but may occur at almost any age. As regards its symptoms, a typical case presents a fairly well defined group of systems, but as the object of this paper is merely to ascertain whether or not this disease is ever entitled to recognition as a surgical condition, we will not enter into their consideration, except to state that in this disease, as in most diseases of the nervous system, although the symptoms may be very numerous, your diagnosis will be guided by the presence or absence of a few cardinal symptoms: which in a case of *Tabes Dorsalis* are as follows:

1. Lightning-like pains, usually in legs, and this is the symptom for which these patients often first seek medical advice.

2. Loss of Knee Jerk (known as Westphal's sign).

3. Swaying of body, especially when eyes are closed, which is increased when feet are close together. (Romberg's sign.)

4. Argylle Robertson pupil. The pupils are small and often uneven. They do not respond to light, but do to accommodation. In the late stages the accommodation reflex is lost.

5. The eye muscles are very apt to become involved by the paralysis of the nerves supplying these muscles.

6. Loss of sexual power is very common and often an early symptom noticed by the patient.

The presence of these few symptoms that I have mentioned will go a long way toward making a diagnosis of Locomotor Ataxia, and the question which I should like to have answered is, "Can trauma produce locomotor ataxia?" If so, then in what manner, and what must be the nature and degree of the violence required to produce that result? I quote the following from Gowers' work, referring to the causes of locomotor ataxia:

"One of these causes which can sometimes be clearly traced is injury, such as involves concussion of the spine; the immediate results of the injury, whether slight or grave, transient or lasting, are followed by the symptoms of the degenerative malady."

Now that statement is made by a writer who, in my judgment, ranks among the very best, still I do not believe it is correct. I do not believe that locomotor ataxia as a primary disease is ever caused by trauma. If the trauma be received by a syphilitic subject and is of sufficient violence

to make an impression on his general health, in such a case I think it fair to recognize the injury as the exciting cause, and also to admit that such a man might never have developed locomotor ataxia as a result of his syphilis had he not received the injury.

Several writers advance the theory that this disease may be secondary to injury to the peripheral nerves, by causing a neuritis which ascends to the posterior spinal ganglia, inducing disturbances there, which may prove the starting point. This may be true, but I doubt it. It is my experience that an injury of sufficient violence to cause organic changes in the spinal cord is not an injury which will select one column to the practical exclusion of others, but is an injury such as compression, which may, of course, be due to several causes, or a hemorrhage, which, in my judgment, is a most common cause of serious cord lesions, and symptoms following an accident, but I have never seen such an injury excite a line of symptoms, which would justify the diagnosis of locomotor ataxia, and I do not believe that that disease is ever due to trauma, unless it occurred in a syphilitic subject, as I have above stated.

*Paralysis Agitans* (Parkinson's Disease). This is another disease frequently described to traumatism, and I have no doubt that in these cases certain injuries are perfectly competent to cause this disease.

The cardinal symptoms and characteristic aspect of these cases are so well known that it is hardly necessary to refer to them, for all one has to do is to reflect on this subject, and it will not be long before he can recall one of these patients to his mind, and having done this the picture is so characteristic that the symptoms can neither be mistaken nor forgotten. The body bent forward, the fixed and anxious facial expression, the flexed arms and the constantly trembling hands, continuing while the limbs are at rest—at least while they are supposed to be at rest, and ceasing only during sleep—the patient leaning forward and walking with short quick steps, which practically amounts to running, and having difficulty in either starting or stopping, and often falling if subjected to the slightest push, constitutes a picture which is easily recognized as a case of shaking palsy.

Regarding the question as to whether or not this disease can result from injury, I have no doubt that it can. I have never seen but one case where I believed the cause to be traumatic, but in that case the evidence was so conclusive that I had no doubt about it being true. This was a

woman who had received general contusions about the body and a severe contusion of the left arm in a railroad accident. The arm never got well, it was more or less painful and weak, and within a few months she began to have a tremor in the arm, which finally affected the other arm, and she developed a well marked case of paralysis agitans.

Gowers believes fright to be the essential feature in starting this disease, and cites the following cases to substantiate his theory:

1. A man was waked by a bell on account of fire. For one and a half years the same bell would cause a transient tremor, which finally became permanent and passed into a typical form of paralysis agitans.

2. The case of a woman aged 37. She was sitting quietly at work when a stream of water suddenly flowed from a tap onto her left wrist. The left arm immediately began to shake and the tremor persisted, passing to the leg, and afterwards to the limbs on the opposite side.

Judging from these cases, as well as others which are cited by different writers, one is forced to admit that fright is a competent producing cause for this disease; and furthermore, judging by the large number of these cases cited by different writers, in which the disease is alleged to follow almost any physical injury, such as fractures, contusions, sprains, burns, etc., one might again admit that almost any injury is a possible cause for this disease. Still nothing except a reasonable amount of evidence by a number of practical surgeons can convince me that trauma plays such an important part in the etiology of this disease as the neurologist would have us believe.

If that be true it is strange to me that it is not more generally known and talked about, and if it is the consensus of surgical opinion that violence is a frequent cause of this disease, why is not something said about it in our standard text books on surgery, if for no other purpose than to let the student know that such a connection may exist. This question also applies to the other diseases which I have mentioned.

*Traumatic Hysteria and Neurasthenia.*—These functional derangements of the nervous system are certainly apt to follow an accident, especially that class of accidents in which there has been an injury to the back, and if the injury was received in such a manner that it resulted in litigation, the liability of one or both of these so-called functional diseases to develop is very much increased, because that injects into the case a certain amount of anxiety, worry and oftentimes fear, which be-

gins at the time of the accident, and ends when their litigation is closed. That of itself is a competent producing cause of the nervous disorder.

The symptoms of traumatic neurasthenia and hysteria are practically the same as the non-traumatic, except, of course, in the traumatic we may have the surgical symptoms. The prominent symptoms of traumatic neurasthenia are about as follows:

1. Backache, which may amount to a severe lumbago. This is often the first symptom, and is nearly always a prominent one.

2. These patients always fatigue easily, both mentally and physically. They are often totally unable to perform any prolonged mental work, and when attempting to perform such work they become mentally confused and develop a headache, and find themselves unable to continue. If they attempt to do anything which requires prolonged physical effort they soon tire and have to stop.

3. They are unnaturally timid, have an anxious expression, and their speech is sometimes thick, which, however, they can correct at will.

4. In neurasthenia there is *never paralysis*, and very little, if any, muscular atrophy. The electric response is about normal. The reflexes are never lost and the tendon reflexes are generally increased. Ankle clonus is extremely rare and never marked. The reflexes in these cases become quickly fatigued, that is, although the knee jerk may be very much increased, repeated taps will soon cause that increase to diminish.

So far as these neurasthenic cases are concerned, I think that they are entitled to much more sympathy and care than they often get, although I believe that many of their minor symptoms they can correct at will. I know that the more important symptoms are beyond the control of their will, and nothing but the most careful attention, and, especially, when possible, the removal of the causes, will result in their recovery, and no one item is more responsible for the continuance of this condition than pending litigation.

As regards traumatic hysteria, it appears to be the consensus of opinion that any accident which is competent to cause a neurasthenia is also competent to cause hysteria, and I have no doubt that this theory is correct, and as it is a well known fact that the symptoms of the disorder, no matter whether it be traumatic or non-traumatic, are practically innumerable, it would be out of place to enter into their discussion in this paper, except to state that hysteria does result fairly often



from accidents. I have seen a number of cases sufficiently well connected with traumatism to justify, in my opinion, the use of the term "Traumatic Hysteria." When we recall the fact that paralysis to almost any extent, muscular contractions, convulsions, etc., are among the common symptoms of this disorder, we are forced to admit that it is entitled to recognition as a serious condition.

#### DISCUSSION.

DR. W. C. WOOD said that this is rather an unusual subject to bring before the Surgical Society; for that reason it has additional interest.

There is one thing that occurred to him that the paper did not bring out. In a large number of these cases complaining of back injury, where there is question of neurasthenia and hysteria present, a large proportion of the symptoms are due to a condition not directly of the nervous system, but to a chronic sprain of the back. This matter has been especially dwelt upon by English writers on the subject, and is one that is deserving of more attention that it has usually received at our hands.

A chronic sprain of the small joints of the vertebral column, with the addition of the many fasciæ and ligaments causes certain symptoms in the back that are very apt to be mistaken on superficial examination for organic diseases of the spinal cord. In these patients with hysterical and neurasthenic conditions, with impending litigation as a cause of mental strain, we find year by year an increase in their symptoms. Those cases that are postponed and appealed, if examined one time after another, as the speaker had done in a few such cases, will show (from lack of use, because these people seldom put forth much effort pending litigation) a chronic stiffness of the back that has increased from year to year. Treatment directed on this theory cures these patients. Dr. Wood believed a large proportion of back injuries of so-called nervous character can be explained under the diagnosis of chronic sprain.

Personally he was much interested in the paper and had no criticisms to make in regard to the conclusions of the author.

DR. M. FIGUEIRA said that traumatic hysteria and spinal trouble due to railroad accidents are two different entities, and it is to that peculiar condition of spinal trouble due to railroad injuries that this pathology that Dr. Wood speaks of applies, according to latest ideas on the subject, whereas traumatic hysteria may be produced by even the slightest traumatism in other parts of

the body. One very marked case of traumatic hysteria he saw in a girl was produced by the pole of an electric car slipping, and the pole came down, giving her a glancing blow on the head and knocked her down. It was not enough to cut the scalp, but yet she was the subject of nervous hysteria for a long time, and she recovered \$2,000 from the railroad, so that these traumatic cases of railroad injury and cases of nervous hysteria are two different things.

DR. J. M. DOWNEY said that with regard to traumatism as a cause of paralysis agitans he could report one case. A girl was riding in a trolley car when a fuse blew out, the pole slipped off the wire, the lights went out, and there was some excitement because the car took fire. There was an intoxicated man sitting next to the girl at the time. He began to roar and frightened her. She ran to get out of the car and fell on her face, striking her right shoulder. Paralysis agitans developed inside of ten days and continued in an extreme form for six months. He had not been able to trace the case for the last two months. He heard from the patient, however, that during a trip to Europe she has been very much better. He believed that traumatism is a cause of paralysis agitans.

DR. C. P. GILDERSLEEVE said that relative to Dr. Wood's remarks that he had left out the back injuries, he would state that he did so purposely, for the reason that if we went into a discussion of the injuries of the back, we would touch upon concussion of the spine, and that is an indefinite term on which everybody differs, and it would take an entire evening to find out just what that term means. It is a fact, exactly as Dr. Wood said, that in a large majority of these cases the primary injury is to the back, hence the origin of the term, "Railway spine," which we formerly heard so much about, and in these cases we often get an actual injury directly to the muscular structures about the back, as a result of which we get a traumatic lumbago. In fact, this form of lumbago is such a frequent complication in traumatic neurasthenia that it is practically included and described in conjunction with that disease, particularly by that class who write upon the medico-legal relation in these diseases. Whether or not the spine will stand a degree of violence which will result in an actual tearing of the ligaments of the spinal column itself, and merely result in a line of symptoms which could be ascribed to a sprained back or traumatic lumbago, is a question. The speaker did not believe it possible. He said we do not hear much about

railway spine nowadays; the latest literature that he recalled is Erichsen's arguments back in 1876. It is a well-known fact that all the symptoms described by Erichsen were due to lesion of the spinal cord itself. The fact is that cases are quite apt to improve after recovering a substantial sum for damages.

### GRANULAR LIDS.

BY B. C. COLLINS, M.D.,

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My idea of this short paper is to call your attention to that condition of the eyelids which has been very common during the past two years, and which has crowded all eye hospitals and dispensaries in New York City. This condition is caused by the vigilance of the health department, especially of the school examiners, who visit the public schools and examine the eyes of the pupils. This examination is certainly a step in the right direction, but it is carried on in a hurried way by men inexperienced in eye diseases. The inspector pulls down the lower lid. It is somewhat granular in appearance. He fills out a card, usually calls the trouble trachoma, and refers the case to some charitable institution or physician for treatment. The history of a case is about as follows: The patient is generally not aware of any eye trouble, and the parents have not observed that the eyes are out of order, but have brought the child for treatment because they have been told that unless the eyes are treated the child cannot return to school. I have seen as many as 34 such cases in one day at my clinic—32 having cards marked trachoma, 2 sore eyes. The cases called trachoma were not trachoma in any sense. In some the conjunctiva was merely congested, blood vessels engorged; others had a blepharitis, and the larger portion showed a follicular conjunctivitis. The simple congestion was due frequently to eye strain from hyperopia, and disappeared under correcting glasses.

The last named condition might be easily taken for trachoma to the untrained eye, and even to those of great experience a case, now and then, may resemble trachoma in some of its symptoms, and a mistake in diagnosis may readily follow.

Some of the text-books do not seem to make a distinction between trachoma and follicular inflammation. Much difference of opinion exists as to whether follicular conjunctivitis should be

placed as a separate disease, or be regarded as a forerunner of trachoma. It is not possible to classify trachoma otherwise than clinically. The pathologists are unable to find a germ peculiar to it, or one which, if introduced into a healthy eye, will produce trachoma.

Trachoma is a chronic disease of the conjunctiva, subject to remissions. It is due to morbid deposit, which in time causes a destruction of the tissues surrounding it. Repair takes place by cicatrization. The scar having a great tendency to contract. The appearances of the different stages differ widely. In the early stages the symptoms are those of a conjunctivitis. The trachoma granules are best seen in the early stages. They are embedded in the conjunctiva, but rise above it. They are irregularly arranged in masses, more numerous on the upper lid, almost wholly confined to the palpebral portion, and the retrotarsal folds.

The following table from Stephenson (*Epidemico Ophthalmia*, 1895), modified by Norris & Oliver's System:

#### FOLLICULAR GRANULES.

- Oval or roundish, transparent bodies, arranged in rows parallel to the lid borders, never exceeding  $1\frac{1}{2}$  millimeters. Most marked in inferior retrotarsal fold.
- 2: Little or no structural change in conjunctivitis.
- 3: Papillary hypertrophy of upper lid, slight.
- 4: Tarsus never implicated.
- 5: Disappear spontaneously and leave no scar.
- 6: No ptosis.
- 7: No pannus.
- 8: No trichiasis, entropiosis, or cicatricial contraction of the cul de sac.
- 9: Usually in persons under 20 years.
- 10: Non-contagious.

#### TRACHOMA.

- Round, opaque, extremely friable. Firmly embedded, and deeply, in the conjunctiva. Their diameter often 2 or more millimeters. Tendency to become confluent. Most numerous and larger in upper retrotarsal fold.
- 2: Structural changes always present.
- 3: Marked hypertrophy.
- 4: Tarsus often involved.
- 5: Spontaneous cure may often occur, but only by cicatrization, which may be slight or extensive.
- 6: Ptosis nearly always present.



- 7: Keratitis in the form of pannus, or ulcer, in about 25 per cent.
- 8: Frequent.
- 9: Any age.
- 10: Conditionally contagious.

In spite of the negative results of the bacteriologist, clinical evidence proves the contagious nature of trachoma. In 1886, a committee of the New York Academy of Medicine, headed by Dr. Derby, called the attention of the Health Department to the prevalence of this disease in homes and asylums, and succeeded in passing a law requiring special precaution to prevent the spread of this disease. The school children of to-day are indebted to this committee for the care they are receiving. From 1886-1902 shows a reduction of 30 per cent. in the number of trachoma cases appearing in New York institutions. The fact that the school children are prevented from attending school, unless they can show evidence that their eyes are receiving attention, is of great benefit.

To quote Jackson (*Progressive Medicine*, 1903): "Without knowing anything about the microbe that causes it, we do know these things about the disease: 1. Trachoma untreated is highly contagious. 2. Local treatment renders it practically non-contagious. 3. The observance of certain reasonable precautions will practically eradicate the disease."

It must not be confused with follicular conjunctivitis. Standish says that those who doubt its contagiousness confuse it with follicular conjunctivitis. From the great similarity of the two conditions I think it wise that follicular conjunctivitis receive as great attention as trachoma, else an untreated case may be left until the lid changes, leaving a deformed and possibly a sightless eye. The number of cases that I have seen proved to be largely follicular, as I have had them under observation for over three years in some cases, and in most of them a spontaneous cure was the result without a scar. I have also observed large frog-spawn granulations present on the lids of a patient 4 years without inflammatory disturbances. In my early practice I operated on a number of cases of granular lids with perfect results, the lids returning to normal condition in two or three weeks. I thought that trachoma was easily eradicated, but I now believe that my cases were follicular and not trachoma.

The prognosis in the two conditions is entirely different. A complete cure can be promised in the cases of follicular inflammation, but in trachoma we must be very careful of our promises.

In the treatment of these cases, almost every operator has his own preference. In the early stages of both conditions, an operation consisting of the expression of the granules as indicated. In trachoma in this stage it is always indicated and the patient should be warned of the dangers of neglect. After the granulations begin to break down, and cicatrization has begun, an operation is not of much benefit. The old method of treatment with Copper Sulph. is not used so extensively as in years past. But it can be used with great benefit in some cases. The pannus of the late stages is often very difficult to clear, and if dense, may remain in spite of treatment. A new remedy, Copper Citrate, used in the form of ointment 5-10 per cent., is said to be useful. Personally I have observed marked improvement in the pannus in the use of argyrol 20-30 per cent., and also its use in follicular conditions has been followed by brilliant results. Fresh air, good food, exercise, care of the digestive tract, are of great importance.

Numerous instruments have been devised for the operation of expression, but as in every other operation, practice with a certain instrument makes that one the favorite.

Dr. P. Chalmers Jameson's remarks corroborated the experience of Dr. Collins and many others made in children sent out from the Public Schools, many cases being erroneously diagnosed which undoubtedly inflicted an injustice on parents and offspring. On the other hand, every one would admit that a great and good work was being accomplished in that while some were eliminated from the schools unnecessarily, yet with them were the genuine cases of trachoma and other infective diseases of the eye. These were taken out of the schools and subjected to active treatment. It was to this and the precaution taken by the Board of Health as to the prevention of emigrants afflicted with this disease landing in the country that we saw less frequently the marked sequelæ, Leucoma, Ectropion, Entropion and blindness which so frequently marked the disease in its chronicity. Dr. Jameson was not quite willing to accept too unreservedly the classification of the follicular types as being altogether distinct from true trachoma. Certainly they were much more amenable to treatment and presented in many instances a different clinical picture, but his own observation corresponded with some others who had seen these types under certain conditions develop into what might be considered genuine trachoma. As to the treatment of this disease by Sulphate of Copper pencil, it was becoming more generally recognized that

while the constant use of cauterizing agents undoubtedly stamped out the disease, the amount of cicatrization produced thereby was greater in the aggregate than that if the disease were let to pursue its own course of cure by self limitation. They would destroy the disease, but the normal mucous membrane was so changed by cicatrization as to become a constant irritant to the cornea as well as to bring about the deformities above mentioned. The advantages of surgical methods now in vogue were their selectiveness for the abnormal tissues leaving as far as possible the normal alone. This distinction could not be made by the caustics so frequently used in the past. He felt, however, that sulphate of Copper undoubtedly had a place in the treatment of conjunctival affections, when used judiciously on the superficial types of conjunctival disease, not too frequently, nor for too long a period of time.

DISCUSSION OF DR. COLLINS' PAPER BY  
J. C. HANCOCK, M.D.

There seems to me to be no reason why an immediate operation in a case of granular lids should not be the rule. We have to deal with an hypertrophied tissue liable to set up a mechanical irritation at any time resulting in pannus, and even in loss of the eye, but also very important is the fact that this tissue is the habitat of an infectious germ, and it should be exposed by incision, and sterilized at once. Treatment with copper sulphate, at the very best, carries the case along for months, and actually often leaves the lid in a condition worse than it would have been had no treatment been employed.

The ideal operation, to my mind, is scraping the lid surface with the Jameson trachomatome, expressing the contents of the granulation tissue, and then for a number of days applying an antiseptic to the lid, at first argyrol 15 per cent., and later an astringent, antiseptic solution.

BRADLEY PARKER, M.D.

BY WILLIAM SCHROEDER, M.D.,  
Chairman of the Hist. Com.

During the last ten years the writer has made an effort to secure a portrait for publication in the Journal of the Medical Society, County of Kings of those of its members who have been called upon to occupy the position of President of the Society and who have completed their life work among us.

From 1822 to 1904 the Society has had fifty-five presidents. Of these, three have served at different times, of the fifty-two remaining, seventeen are still active members of the Society, thirty-five have passed away. Of this number portraits of twenty-eight, with short sketches of their professional lives have been presented through the medium of the *Brooklyn Medical Journal*. Of the seven remaining the writer has the pleasure of presenting one, namely, Bradley Parker. He was born in the United States on December 15, 1806, and died in Brooklyn, N. Y., January 16, 1869.



His son was the well-known druggist, Herschel Parker, and a daughter the wife of Oliver N. Bostwick, of this city.

Dr. Parker received the degree of M.D. from the Medical Department of Dartmouth College in 1824. He engaged in the practice of medicine in New York City, but in 1835 located in Brooklyn, for a time at Fulton and Jay street and later at 148 Joralemon street. He was physician to the Brooklyn Dispensary in 1841 and became a member of the Medical Society of the County of Kings in 1836. He held the position of censor in 1838, 1840-41 and 1846-47, Secretary in 1842-43, and President in 1844.

The portrait of Dr. Parker is a copy of a large



one in the possession of Joppa Lodge No. 201, F. A. M., and through the courtesy of that lodge the writer is able to present it. The doctor is here represented as master of that lodge in the year 1853. In 1859 he affiliated with St. Albans lodge, No. 56, of which he was master in 1860 and 61. He was D.D.G.M. of the third Masonic District in 1862, a member of Brooklyn Chapter No. 148, R. A. M., of which he was High Priest in 1858; knighted in Friendship Commandery No. 27, K. T., in 1857, and held the position of Eminent Commander in 1858. In 1859 he affiliated with Clinton Commandery No. 14 K. T., of which he was Eminent Commander in 1860; he also held membership in the Ancient and Primitive Rite 33° Rite of Memphis.

A special conclave of Clinton Commandery No. 14 K. T. was held on Tuesday, January 19, 1869, to attend the funeral of Eminent Sir Bradley Parker, M.D. Full Templar service at Greenwood. St. Albans Lodge No. 56, F. A. M., and Brooklyn Chapter No. 148, R. A. M., were invited and attended the funeral.

WILLIAM SCHROEDER, M.D.,  
Chairman of the Hist. Com.

## PROCEEDINGS OF SOCIETIES.

### THE MEDICAL SOCIETY OF THE COUNTY OF KINGS.

STATED MEETING, FEBRUARY 16, 1904.

The President, J. E. SHEPPARD, M.D., in the Chair.

The meeting was called to order and the minutes of the previous meeting and of the special meeting held February 13, 1904, were read and approved.

The President announced the following deaths:

Frederick Randall Winter, died February 5, 1904, member 1893 to 1904.

Henry Jackson Seely, died February 7, 1904, member 1900 to 1904.

George Henry Robins Bennett, died February 6, 1904, member 1865 to 1868.

#### REPORT OF COUNCIL.

The Council reported favorably upon the following application for membership:

Johns A. Shields, P. & S., 1898.

#### APPLICATIONS FOR MEMBERSHIP.

Applications have been received from the following:

Charles J. Walker, 2 Brevoort Place, L. I. C. H., 1903. Proposed by J. C. Cardwell, seconded by J. H. Raymond.

Theodore F. Trumpp, 204 Nostrand Avenue, L. I. C. H., 1903, proposed by Membership Committee.

Clayton Sharp, 373 Twelfth Street, P. & S., 1901, proposed by Membership Committee.

#### ELECTION OF MEMBERS.

The following having been duly proposed and accepted by the Council were declared, by the President, elected to active membership.

C. G. Crane, P. & S., 1900.

P. J. Murray, Bellevue, 1895.

#### SCIENTIFIC PROGRAM.

1. Paper: The Pathology of Nephritis. By Dr. Archibald Murray.

2. Paper: The Clinical Aspect of Nephritis. By Dr. J. C. Bierwith.

3. Paper: On Renal Decapsulation. By J. M. Van Cott.

4. Paper: On Renal Surgery. By H. B. Delatour.

#### EXECUTIVE SESSION.

The following resolution was offered by Dr. J. H. Raymond, Chairman, Public Health Committee:

*Whereas*, There is attached to the Department of Health of the City of New York an Advisory Board, whose function it is to advise the Board of Health when called upon in matters pertaining to the public health; and

*Whereas*, This Board, consisting of eleven physicians, contains no representative from the Borough of Brooklyn, although of the total population of 3,838,024, the Borough of Brooklyn contains 1,334,952; and

*Whereas*, The residents of Brooklyn, and especially its medical profession, are equally interested with the other boroughs in all matters pertaining to the public health of the city; therefore be it

*Resolved*, That the Medical Society of the County of Kings request the Board of Health of the City of New York to appoint on its Advisory Board such a number of physicians of the Borough of Brooklyn as will adequately represent it; and

*Resolved*, That the Committee on Public Health be instructed to present in person these preambles and resolutions.

On motion, duly seconded, the resolution was adopted.

The following resolution was also offered by Dr. J. H. Raymond, Chairman, Public Health Committee:

*Whereas*, There exists in connection with the contagious disease hospitals of the City of New York located in the Boroughs of Manhattan and the Bronx, a visiting staff of physicians and surgeons; and

*Whereas*, There exists no such staff in connection with the Kingston Avenue Hospital, the contagious disease hospital of the Borough of Brooklyn; and

*Whereas*, In the opinion of this Society such a staff is of great value, not only as a stimulus to the resident staff to maintain their methods of treatment at the highest possible standard, but also as an assurance to the public that patients sent to such hospitals are receiving the best possible treatment, and further as a help to the Department of Health in establishing in the community a confidence in such hospitals; therefore be it

*Resolved*, That this Society requests of the Board of Health the appointment of a visiting staff of physicians and surgeons for the Kingston Avenue Hospital, such staff to be selected from the profession of this Borough; and

*Resolved*, That the Committee on Public Health be instructed to present in person these preambles and resolutions to the President of the Board of Health.

On motion, duly seconded, the resolution was adopted.

Adjourned.

WM. S. HUBBARD,  
*Secretary.*

## THE MEDICAL SOCIETY OF THE COUNTY OF KINGS.

SPECIAL MEETING, FEBRUARY 13, 1904.

The President, J. E. SHEPPARD, M. D., in the Chair.

The meeting was called to order.

The Secretary read the call for the meeting, announcing that the object was to consider and act upon the recommendation of the Medical Society of the State of New York, that the following form of ratification of the agreement for the consolidation of the Medical Society of the State of New York and the New York State Medical Association be adopted:

*Resolved*, That the Medical Society of the County of Kings hereby ratifies, approves and adopts the agreement for the consolidation of the Medical Society of the State of New York and the New York State Medical Association, which was unanimously approved and adopted at the annual meeting of the Medical Society of the State of New York held at Albany on January 26, 1904; and the Medical Society of the County of Kings hereby waives notice of an application to Court for an order consolidating said corporations pursuant to the terms of said Agreement, and hereby consents to the entry of such an order without notice; and be it further

*Resolved*, That the Secretary of this meeting be, and he is hereby authorized and directed to send a copy of these resolutions, duly certified by the President and Secretary of the meeting, to the Secretary of the Medical Society of the State of New York, and to execute and deliver any and all waivers of notice of an application for such order as the Court may require.

A motion was made by Dr. Bristow that this Agreement be adopted, and that the Medical Society of the County of Kings make this Agreement its own Agreement and ratify this proceeding. Seconded.

The motion was discussed by Drs. Bristow, McNaughton, Tredwell, Schroeder, Evans, Delatour, Maddren, Fowler, Stuart, Murray, Browning, Fleming and Jewett. An address was made by Dr. A. Jacobi, and inquiries answered by Dr. W. R. Townsend, Secretary of the Joint Committee of Conference, and Mr. Howard Van Sinderen of Counsel.

Dr. Fleming moved that the invited guests be accorded the privileges of the floor. Seconded and carried.

Dr. Browning moved as a substitute motion that the President, Dr. Bristow and Dr. McNaughton be a committee to take the matter of ratifying this Agreement in charge, and see if some arrangement satisfactory to the Medical Society of the County of Kings could not be made regarding the dues or assessments to the State Society.

Dr. Jewett moved the previous question. The motion to ratify the Agreement for the consolidation of the Medical Society of the State of New York and the New York State Medical Association was put before the house and declared by the President to be carried.

The meeting then adjourned.

WM. S. HUBBARD,  
*Secretary.*



## LONG ISLAND MEDICAL SOCIETY.

OCTOBER.

(Continued from p. 70.)

## THE TREATMENT OF PNEUMONIA.

BY DR. A. S. TREADWELL.

The following is an abstract of Dr. Treadwell's paper:

Jorgensen states that 7 per cent. of the total mortality is due to pneumonia, and that one out of every fifteen pneumonias dies. The reports of the Mass. General Hospital place the rate of death at 35 per cent. of all cases of pneumonia. These are of course hospital cases, which include alcoholics and many bad cases.

In the treatment of pneumonia cardiac depressants are being avoided. The serum treatment is the most rational but is still imperfect. The intestinal tract should be thoroughly cleared at the outset by free catharsis. Alcohol in pneumonia is a necessary drug, rightly used, especially needed in alcoholic cases. It is most effective in small doses frequently repeated. Other stimulants of use are strychnia, nitroglycerin, digitalis, strophanthus. The ammonia preparations are of use for their expectorant, diuretic and diaphoretic action, the carbonate probably being the best. The author has found the use of cold of great benefit and uses with patients when the fever is very high a cold bath, temperature  $40^{\circ}$ , until the temperature has been lowered to  $101\frac{1}{2}^{\circ}$ , when the bath is discontinued and the patient is wrapped in dry clothes, without the body being dried. The ice cap applied to the seat of pain is of use for the pain, especially of pleuritic origin.

In speaking of cold treatment in pneumonia, Hare says it should not be used in adynamic cases, as feeble patients cannot stand the abstraction of so much heat without being attended with severe shock. Marchand states the application of cold produces (especially in high fever) a marked reduction in the temperature of the skin which is characterized by swelling of the cutaneous surfaces and congestion of the internal viscera. Neumeyer applies sheets to the chest, dipped in water at  $60^{\circ}$ , wrung out and reapplied in five minutes. Barruch applies cold with friction, which aids the patient in withstanding the feeling of chilliness and hastens the reflex action following shock.

Case, boy, aged 14, cigarette smoker, not robust. Ice cap applied every three hours for 20 minutes. Crisis on the fifth day. Recovery.

Case, man aged 50, asthma every year, pneumonia, temp.  $104\frac{3}{4}$ , middle lobe of right lung consolidated. On the following day temp. 105, pulse 130, respiration 42. Ice bath and ice cap to diseased lobe. Improvement. Crisis on the sixth day. On the following day sudden collapse and death occurred.

## DISCUSSION.

DR. SCHOENIJAHN recommended the use of creosotol in doses of 30 minims every two hours, and cited two cases which were apparently beginning pneumonia which had recovered promptly with this treatment.

DR. CORNWALL said that he thought death was more often due to mechanical causes than to toxæmia. The treatment outlined in the paper he approved of. Antiseptics are of little use. Oxygen should not be given as a last resort, but given all through.

DR. TOMES said that he had used creosotol in 10 minim doses in a number of cases. All have recovered. Cupping he had found of benefit in relieving the pain and dyspnea.

DR. MORRISON said that he knew of 15 or 16 cases in which creosotol had been used, 20 to 30 minim doses in capsule. All had recovered. He cited one bad case with an intermittent pulse to whom nitroglycerin had been given every hour and oxygen administered, who recovered. Digitalis is contraindicated in pneumonia because of the extra work thrown on the heart.

DR. CLAYLAND said that while cold treatment is theoretically good he finds that patients dislike it so decidedly as to make its use impracticable. He quoted Dr. Schapps, of Pony, Montana, who said that pneumonia was very fatal in that altitude. This emphasizes the importance of good ventilation, a matter which the families are apt to neglect. Salicylic acid in large doses he had found of benefit in some cases.

The pneumococcus grows in an alkaline medium. The alkalinity could be diminished by the use of dilute hydrochloric acid.

## REPORT OF AN UNUSUAL CASE OF EMPYEMA.

BY DR. J. M. CLAYLAND.

A patient had had pneumonia, followed by empyema; had been aspirated; later a spontaneous opening had occurred through the chest wall and discharge of pus through a bronchus. The opening in the chest wall had healed, but pus in the sputum had continued. The patient was anaemic, emaciated, had a cough, with a dark, foul-smelling sputum and had night sweats. He advised the patient to lie every morning in such a posi-

tion as to enable the pus to flow into the bronchus and be expectorated. This was done for one month, large quantities of pus being expectorated and the patient showed a marked improvement. After continuing this practice for three months he was entirely well.

The tendency of a patient with such a cough is to lie in the most comfortable position which is the way to quiet the cough and retain the pus. It is better to find the position which will enable him to get rid of the expectoration, as this case illustrates.

#### THE BROOKLYN SURGICAL SOCIETY.

REGULAR MEETING, DECEMBER 3, 1903.

#### RESECTION OF THE KNEE-JOINT FOR NECROSIS.

DR. J. M. DOWNEY presented a boy nine years of age, who fell on a garden rake, one of the prongs sticking into his knee. Two weeks after the accident the speaker saw him with his family physician. The knee was swollen, painful and there was some fluctuation on the sides. His temperature was  $102.8^{\circ}$  by mouth. The original wound had healed and no trace of it could be found.

The patient was anaesthetized and four lateral incisions were made, two above and two below the joint, with free drainage. He was dressed and put to bed. The next day his temperature was  $99^{\circ}$  in the morning,  $100.5^{\circ}$  the same night. It continued like that for two weeks; all the openings closed except one on the inner side of the leg, which continued to discharge pus.

The speaker again examined him at the end of this time and was able to pass a probe from this sinus to the head of the tibia, which was necrotic. Two days later he was prepared for operation of resection. The usual semicircular incision was made and the joint exposed. The head of the tibia was found to be necrotic, the cartilage destroyed and the cartilage of the femur eroded. The joint was full of a thick gelatinous mass. About three-quarters of an inch of the tibia was removed; this left a small necrotic area in the medullary cavity of the bone, which was removed with the curette. The joint was then washed out and a section removed from the end of the femur, the bones were approximated and a gauze drain placed over the ends of the bones for drainage. The incision was closed with chromic gut, dressing applied and put in plaster cast. At the end of five days the drain was removed and two small

ones put in its place. Two weeks after operation the wound had all healed, and four weeks later the patient was discharged cured with bony union.

#### VESICAL CALCULI IN A CHILD FOUR YEARS OF AGE.

DR. J. M. DOWNEY presented a boy four years of age, who had been operated upon by him for vesical calculi. His object in reporting this case is to call attention: 1st, to the age of the child; 2d, to the size of the two stones (weighing 150 grains); 3d, the apparent difference in the composition; 4th, the operation.

The bladder was inflated with air and the usual vertical incision of about  $2\frac{1}{2}$  inches made through the bladder and the calculi removed. The bladder was sewed up separately with a continuous catgut suture, the muscles and fascia with a continuous chromic gut. The skin incision was closed at the upper and lower angle, the middle left open and the dressing applied. For the next few days the temperature ranged from  $100^{\circ}$  to  $101^{\circ}$ .

The bladder was irrigated twice a day with boric acid solution, and patient catheterized every three hours. Patient was discharged cured at the end of four weeks. When the incision is left open, it does not heal rapidly as it is difficult to protect the wound in a patient so young. The object of leaving the middle of the incision open was in case he did not get primary union, he would avoid urinary infiltration under the skin. He was sure had he closed the skin incision, the same as the rest of the wound, he would have shortened recovery two weeks. One of the calculi was phosphatic, the other was of urates.

#### BOTRYOID LIVER.

DR. R. S. FOWLER presented a specimen from a man 25 years old, Italian, admitted to Brooklyn Hospital September 11, 1903. Syphilis three years ago. Inordinate wine drinker since early youth.

Three months ago was suddenly seized with swelling of abdomen, without pain, directly after a long debauch. This swelling gradually increased until time of admission to hospital.

On examination it was found that his abdomen was distended and tense with dullness in the flanks and tympany about the umbilicus, the level of the dullness varying as the patient's position was changed. The lower border of the liver could not be made out. Heart and lungs were normal. The urine was normal. There was slight jaundice. The condition was believed to be due to a cirrhosis of the liver, and it was decided to open the



abdomen and scarify the surface of the liver and parietal peritoneum, stitching the omentum to the anterior abdominal wall.

On opening the abdomen two gallons of ascitic fluid escaped. The liver was found small and very hard, presenting all over its surface clustered protuberances about the size of small grapes. This contraindicated any scarification of the liver. The operation was completed and the patient sent to the ward. The ascitic fluid interfered with the healing of the wound. The patient received antisyphilitic treatment, but died thirteen days after operation.

The autopsy revealed no marked abnormality other than that of the liver, but showed that dense adhesions had taken place at the point at which the omentum had been sewn to the anterior abdominal wall.

#### HERNIATED APPENDIX VERMIFORMIS.

DR. R. S. FOWLER reported the case of a woman, age 30, admitted to Brooklyn Hospital November 17, 1903. She gave a history of headache, irregular menstruation, dragging, constant pain in front and on right side. Pain shooting down right thigh, increased during menstruation. Had had a vaginal discharge for years. Showed uterus normal, right ovary enlarged and tender, some thickening on left side. Operation: Curettage, ovaries microcystic, resected. The appendix was found lying in the recessus retro caecalis, from which it readily slipped. It was found slightly thickened and was removed.

#### TRIGGER FINGER CURED BY OPERATION.

DR. W. L. DUFFIELD reported a case of trigger finger, which seemed interesting to him for the reason that he had been unable to find any report of a similar case. The patient was a girl about sixteen years of age. About the middle of May, while playing basketball, the little finger of the left hand was forcibly extended. The finger pained for two days and then became stiff and sore without any acute pain. At this time a lump was noticed about the middle of the palmar surface of the finger. One week after receipt of the injury the finger became extended, stiffness persisting, and it could only be flexed by considerable muscular exertion, and was accompanied by a quick snap or jerk.

About two weeks after the injury a physician was consulted and a diagnosis of dislocation made and splints applied, first straight splints and later curved, but these failed to give relief. The splints were worn for about two weeks. When she came under the observation of the

speaker the finger was fully extended and abducted, and could only be flexed and adducted by considerable effort, and then with a snap or jerk. The distal phalanx would gradually flex to a very slight degree, and then the rest of the finger would suddenly flex on to the palm of the hand. There was slight thickening over the middle of the palmar surface of the finger, but this was less than it had been. The only actual change he could find was a slight tendency of the extensor tendon to slip to the outer side of the finger during flexion. This he disregarded at the time, but when she returned a few days later, it was more pronounced, and he found, by holding the tendon in its proper position by firm digital pressure, that flexion was accomplished with but little trouble.

Operation was advised, and on June 6th an incision over and down to the extensor tendon was made, and the tendon sutured to the internal lateral ligament of the metacarpo-phalangeal joint, from which it appeared to be torn. The two lateral portions were also drawn together in their passage over the first interphalangeal joint. The finger was then placed in a splint for two weeks, at the end of which time both active and passive movements were made. She now has perfect use of the finger, with the exception of a slight stiffness of the last phalanx.

#### OBSTRUCTION OF THE CAPUT COLI WITH CHERRY PITS, AND SUBSEQUENT OBSTRUCTION OF MURPHY BUTTON BY PLUM PITS.

DR. M. FIGUEIRA reported a case and presented the specimens which were removed from the patient, and showed the condition of the intestine found post-mortem. This man came to him suffering from intestinal obstruction. He had nausea and vomiting at times; he had distention of the gut with pains after eating and pains and vomiting after the use of cathartics. In the right iliac fossa there was a tumor that was movable; and below this tumor could be felt the distended head of the colon, forming a mass that was tympanitic; and above that this mass which was dull. The specimen showed the large appendix. The ileum was very much hypertrophied, as much as the colon was.

The resection was done in the usual way, the two ends of the large and small intestine were closed, and then an anastomosis was done with the Murphy button and the patient sent to the ward. When the speaker came to examine the specimen after the man had been removed he found the pouch full of cherry pits.

This is interesting in relation to this other specimen. This man did well for four days, and during that time he passed by stool innumerable cherry pits. The speaker inquired of him why this was so, and he told him that up in the country where he lived a physician had told him that that tumor on his side was a fecal impaction, and if he should go and eat all the cherry pits that he could get, the pits in time would push this thing down and cure him. He lived in the trees, and got all the cherries he could. Then he began to eat plum pits. A plum pit occluded the Murphy button, and then the struggle of this hypertrophied gut to push its contents along tore away the gut from the Murphy button, and the man died in 24 hours with septic infection from extravasation on the fourth day after the operation.

Dr. Figueira did not know before the operation that this man had been living on cherry pits, or he would not have used the Murphy button, but would have performed a lateral anastomosis. This shows one of the limitations and dangers of the Murphy button. In cases where a fecal concretion or a gall stone, or even, as in this case, a large pit of a fruit becomes impacted in a Murphy button, the patient will die, as in this case.

#### STRICTURE OF THE PYLORUS; GASTRO-ENTER-OSTOMY.

DR. M. FIGUEIRA presented a man who had come to him suffering from symptoms of closure of the pyloric end of the stomach. He had lost 40 pounds, and weighed then 120 pounds. His stomach was dilated below the umbilicus, and he would vomit at intervals all that he had taken for, sometimes, 48 hours, and it would come in large amounts—sometimes two quarts. The vomit was very offensive, and at times of dark chocolate color. There was no doubt that he was suffering from a severe stricture of the pyloric end of the stomach, and after treatment by lavage and other means, it was evident that he was losing flesh, and toward the end rejected everything, so that it was evident his life could not be prolonged for any length of time without some interference. He became so weak that when he went to the hospital he could hardly walk.

The posterior operation after Von Häcker was performed, a Murphy button being used. The intestine was anastomosed to the posterior wall of the stomach through the mesocolon, and about 14 inches from the pyloric end, and then this loop was anastomosed to the jejunum about

14 inches from the place where the jejunum was attached to the stomach, thus performing in addition an entero anastomosis. The Murphy button was used in both cases, and the rapidity with which the operation was performed was remarkable indeed. The man recovered. The operation was performed about eight months ago. He has gained 50 pounds, is well, eats everything, his bowels move regularly, and he is working at his business of a waiter.

#### Discussion.

DR. R. W. WESTBROOK said that he had done within six months two cases of gastro-enterostomy for carcinoma of the pylorus by the posterior method of Von Häcker, and found the second anastomosis was not necessary, doing the one anastomosis of the jejunum to the posterior wall of the stomach. He followed the suggestion of Willy Meyer to attach the gut longitudinally along the posterior wall of the stomach on each side of the button by a few sutures, so that it is well held up against it, in that way offering a better opportunity for the button to fall down in the bowel and pass out. Both of these cases have had no trouble. There had been no "vicious circle," the button was passed in due time in each case, and the method impressed him very favorably indeed.

The objection to the Murphy button in non-carcinomatous stricture of the pylorus is that the button may fall back into the stomach and remain there, but the operation is so readily performed that he should be inclined to use it in those cases, as he thinks the insertion of these few sutures affords a better opportunity for it to pass on downward.

DR. J. B. BOGART said that with reference to the use of the Murphy button in gastro-enterostomy, it seems to him that the present practice is rather against than in favor of it, for the reason that the button has so many drawbacks to its use, and moreover it does not seem to him to be necessary.

In all the experience he had had, he had been very well satisfied with Kocher's method of attaching the jejunum to the anterior wall of the stomach, and he had never had to make an additional anastomosis to obviate the vicious circle. His patients had done well, and he had not suffered from the fear that we have when we use a Murphy button, that it will not pass, the intestine becoming kinked, or anything of that kind happen. It seems also more convenient to do the anterior operation, and as for ease and facility nothing



can be nicer than the anterior operation as devised by Kocher. It is a simple matter of plain sailing, and the sutures being continuous, and, with a double layer of them, it seems impossible for it to leak.

The speaker deprecated the use of the Murphy button except in emergencies, where we must work very quickly, and he ventured to say if Dr. Figueira had done an end to end anastomosis of the intestines, even the plum pit would have passed satisfactorily, and he could have shown us the patient instead of the specimen. At the same time he took into account the fact that he had a double operation to do and to act as quickly as he could. The case is unusual enough to test one's skill and judgment, especially as the man did not confide in him, and tell him that he had been loading himself up with cherry and plum pits before the operation.

DR. M. FIGUEIRA said that in regard to the falling of the Murphy button in the stomach, in the posterior operation, the tendency of gravitation is for the button to fall into the bowel. The stomach naturally lies in a more or less flat way, the lower part of the stomach being superior to the anastomosed part of the gut. Then again there is another procedure that helps the button to fall in the gut, and it is this: The Murphy button has two parts, the first or male part, which projects into the second or female part. The female part has a collar and a spring, and then there is a set of small springs with catches in the male part. This makes the female part much heavier, so that in making the anastomosis we place the male part in the stomach and the female part in the gut. The weight of the button has a tendency to drag it down into the intestine, and in that way obviate the danger of its falling into the stomach.

As to the advantages of the Murphy button, he thought they are marked and decided. In all these cases the danger is from prolonged manipulation. The longer we manipulate the intestine the less chance the patient has. The usual danger is from soiling the intestine with fecal matter, and any one who has done the operation with the Murphy button will find these dangers are minimized to a great extent, and except in cases in which the button may get occluded, he did not think that there is any great danger. Moreover, statistics prove that the results of an entero-anastomosis by the Murphy button are superior to the results of operations done by other methods.

As to the advantage of the posterior over the

anterior operation, he thought there is room for no question about it, if we only look at the anatomical relations of the parts. There are the stomach and omentum, then the colon and back of it the small intestine right at the base of the mesocolon, so that the first part of the jejunum is right close under the mesocolon, only supported by the posterior part of the stomach from the mesocolon, so that in doing the operation the bowel is in its normal anatomical position, whereas in the other case we have to bring it around the colon with its mesentery and in front of the stomach, and there the anastomosis lies superior to the stomach.

In the natural condition the force of gravitation will send the contents of the stomach to the posterior wall close down to the great curvature. If the anastomosis is there, the force of gravity will send the contents of the stomach into the gut, whereas in the anterior anastomosis we do not have this advantage, and the bowel is more apt to kink and drag than in the posterior portion, where the wall of the stomach is sewed up to the meso-colon, so that there is no dragging on the stomach by the attached gut, whereas this is not the case when the anterior operation is performed, and he believed that the weight of opinion is to perform the posterior operation. He did not believe any one in New York does the anterior operation now.

As to the advisability of performing entero-anastomosis, this is a procedure that is recommended by all the authorities on this subject, and is a procedure that is very rational. When we attach the loop of intestine to the stomach, we do not leave any vent to the contents of that loop of gut, and in some cases the occlusion of gut is not complete, and some of the contents of the stomach will leak through there. Then the secretions from the pancreas and liver will come down, and when the gut becomes distended and contracts, he could not see anything to prevent its getting into the stomach. The cases in which it happens are very distressing indeed, and the literature of gastro-enterostomy is full of it. Kocher spent much ingenuity and time devising this operation. Then there are Von Häcker, Roux and Braun, all recognize this as the only measure, and they all say this method of entero-anastomosis is the means of obviating the vicious circle. Then again it is a simple operation, is done in a few minutes, has less danger, is a great safeguard, and is the proper thing to do.

DR. J. B. BOGART said that it is simpler to bring up the jejunum and lay it against the an-

terior wall of the stomach, with the proximal portion of the loop compressed by the distal portion, to take a line of sutures to catch it there, and then to make an opening in the stomach in a curved direction parallel with the long axis of the stomach, and afterward make another curved opening in the intestine, forming the valve. He had been content to follow that course. This valve is an integral part of the operation, and it does do the work that Kocher spent his time in planning that it should. That is the important feature, and it seemed to him that this valve, which it does not take any longer to make than simply making a curved incision, should be made.

Kocher discarded the posterior operation because it was too difficult, took too much time; and it seemed to the speaker that is a very good reason; and that is the reason why he devised a simpler, quicker and equally efficient operation.

Dr. Figueira had spoken about the Murphy button taking precedence over the end to end anastomosis, that is to say, the simple suture of the intestine.

The speaker was under the impression that the tendency is away from it, except in an emergency, and to do a simple straight end to end anastomosis; and the results are much better. The reason why the button is being omitted in these cases is because the results with the button are unsatisfactory.

DR. R. W. WESTBROOK said that he did not think it more difficult or that it takes more time than the anterior operation, and as Dr. Figueira had said, when you turn up the mesocolon you have the jejunum right under your hand close to the posterior wall of the stomach, so that you lose no time in hunting for the loop of jejunum. It is not always easy to recognize what loop of bowel you have, and instances have been known where the lower portion of the ileum has been drawn up and attached to the anterior wall of the stomach. It is an operation that can be done in just as short time as the other, and as to the logical and anatomical advantages of it, it only has to be tried to persuade one it is the proper operation to do.

The speaker was in Washington last May when the subject of gastro-enterostomy was touched upon incidentally, and he found that almost all were doing the posterior operation, whether they did it with the Murphy button or not. Moynihan, who has done perhaps as many gastro-enterostomies as any one, does it by the posterior method. The use of the Murphy button cer-

tainly saves time. These cases are usually nearly starved to death. One of the speaker's cases was a woman of 66 and practically starved. He did not wish to lose a moment of time, and the operation with the Murphy button was a very simple thing indeed.

He did not think there is much in Dr. Figueira's belief, that the heavier half of the button will make it gravitate downward, because when the button is pressed together it is practically a single body, and the difference in weight of the ends is not much.

DR. T. B. SPENCE said that he had done the anterior and the posterior operations, and wished to add his testimony to that of the last speaker with regard to the ease with which the posterior operation can be done. We know where the proximal end of the jejunum is, to begin with, and that is something that, as has been said, is not perfectly easy to tell, unless we get down near the duodenum.

This matter of vicious circle cannot be settled by a few words. Such a thing does occur, and he did not believe we are always going to obviate it by the sutures Dr. Westbrook speaks of. Many of these cases would not have the vicious circle if simply the Murphy button were put in. Some of them would, but the problem is to devise a way in which none of them will.

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## THE BROOKLYN PATHOLOGICAL SOCIETY.

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445TH REGULAR MEETING, DECEMBER 10, 1903.

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The President, J. C. MACEVITT, M.D., in the Chair.

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HENRY G. WEBSTER, M.D., Editor

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REPORT OF CASES: MALIGNANT AND OTHER DISEASES TREATED BY THE X-RAYS; PATIENTS.

DR. G. L. BUIST: I have brought here some cases that have done well and some that have not done well.

The first two cases here are recurrent carcinomas of the breast. Here are some photographs, which in some cases were taken before the treatment was instituted, and some photo-



graphs after the treatment had gone on for some time after the patients had apparently been cured. I have not told any patient that I have treated that they were cured, because I do not think with the present status of the X-ray we can say there is a cure. We cannot say we can absolutely cure the case, though there have been some excellent results, and some that have not been so.

The first case, referred to me by Dr. Westbrook, was operated on for carcinoma of the breast, and the recurrence took place shortly after the operation. When she came to me she had nodules in the line of the scar, but no involvement of the glands above the clavicle. She was treated three times a week until we brought out a dermatitis, but no erosion took place. In the course of one month we were positive the nodules had decreased in size and that the pain had lessened greatly, and in fact had disappeared. I have been unable to find any nodules to-day. About a week ago she was confined to her bed with a great deal of pain in the thigh. This has occurred in a great many cases treated, both for carcinoma of the breast and of the uterus, and I hope some one will be able to give an explanation of it.

In practice I have used a heavy coil, and the large, heavy self regulating tubes of Queen & Co. In most cases I have kept the tube at 22cm. from the place I was treating, and have administered the treatment from ten to twenty minutes.

This second case is particularly interesting from the fact that she has not persisted in the treatment, and nearly every time she stopped the treatment she had a great deal more pain in the breast and nodules. When the case came to me the involvement of the glands above the clavicle was very marked, about the size of a robin's egg, and she had a great deal of pain, which radiated up the neck. This case from time to time has been having excruciating pain, but not in the region treated by the X-ray—mostly in the legs and in the feet. Dr. Taylor suggested that there might possibly be an involvement of the cord and metastases, which would account for the pain she was having in her legs. It does not seem to me that this is so because of the clinical course of the case. While she has not been treated in the cord, there has been no evidence of an increase, which we would expect if there was a tumor in the cord. This case is under treatment still, and you can feel some nodules here now.

I have another case to relate that died. She was operated on by Dr. Wood. The diagnosis

by Dr. Van Cott was a chronic mastitis. Recurrence took place and the nodule was taken out and sent to Dr. Van Cott again. Two pathologists diagnosed the case as being absolutely a chronic mastitis, and this case was treated by the X-ray without any effect whatever. The case subsequently died, having had an involvement of the liver and enlargement of the spleen.

(1) The next cases are epitheliomata. This one case we expect now to get well.

(2) A section was taken in this other case and the diagnosis verified by the microscope by Dr. Moak. The growth seemed to melt away, and there is healthy skin left there. She was under treatment for about two and a half months. I have seen her once a week, but I expect to stop now, and have her report in the course of four months or sooner, if there are any signs of return.

(3) The next case is one of epithelioma, of which a section was taken. No report has been made, but I think without question the diagnosis is epithelioma. She has improved, and I think in the course of a month or two will be well.

(4) This is a case of epithelioma of the hand, which was removed, and verified microscopically. It would not heal up at all, and was turned over for X-ray treatment and has healed entirely.

(5) This gentleman has been under treatment for seven or eight months. He had an epithelioma of the eye, which was very much like this on the right side. When he came to me he had no appearance of trouble on the right side, but the traces that you see on the right side now are about the same as existed on the left side. He went under treatment and seemed to get along nicely for a while and was improving; then he began to go backward and is worse to-day than when he started in on the treatment. He has been having treatments from 10 to 15 minutes. I have recently pushed the treatment very hard, but with no apparent effect on the growth. No section was taken in this case, but I think there is no question that it is an epithelioma.

(6) Here is another case that I should like some help on. It is a case of tubercular osteitis referred to me by Dr. Taylor. There was some spinal trouble at one time and other involvement of tubercular nature. It seemed as though, if X-ray treatment were ever going to do any good that this would be a favorable situation, because here there is very little structure to penetrate. He was treated for three to four months, but I cannot see any change at all. It was continued up to the point of irritation.

REPORT OF CASE: HODGKINS DISEASE TREATED BY  
THE X-RAY; PATIENTS.

DR. J. G. WILLIAMS: This patient is 44 years of age, and is the mother of six children. In the fall of 1901 she had her attention called to a swelling on the left side of the neck anterior to the sterno mastoid muscle about the size of a chestnut. This continued to increase in size, and about three months later a tumor appeared on the right side of the neck in a corresponding site. These tumors increased in size on both sides of the neck, extending up to the angle of the jaw. During this time she noticed tumors in both axillae.

When she applied at St. Mary's Hospital Dispensary in 1902 masses of varying size could also be detected, scattered throughout the abdomen. There were also some masses in the groin on both sides.

An examination of the blood showed a count of 4,000,000 red cells, leucocytes 13,000, hæmoglobin 73 per cent. No differential count of leucocytes was made, but they were apparently in normal proportions. Urine, negative, except for a tract of albumin.

Treatment: She was given Fowler's solution in increasing doses and a tonic pill. She had specific treatment for a time without any apparent effect; in fact the tumors increased in size, and there was very little improvement in the general condition. At times she had œdema of the legs, also a cough which was supposed to be due to the pressure of the tumors in the neck.

She was referred to me for X-ray treatment in October, 1903. She had only five exposures in all, three on the left side and two on the right. I saw no more of her until about a week ago. Meanwhile she had been ill at home suffering from what seems like an intoxication due to absorption of products as a result of the treatment. The symptoms were severe headache, fever and rapid pulse. These symptoms disappeared in a few days. The growths in the neck diminished very markedly in size under the influence of the X-rays, and I shall now employ the treatment in an endeavor to secure a favorable effect on the swellings in other portions of the body.

REPORT OF CASE: APPENDICITIS COMPLICATED  
WITH ECTOPIC GESTATION; SPECIMEN.

DR. J. R. TAYLOR: The history of the patient from whom this specimen came is briefly, that she had a recurring appendicitis at intervals for about a year. Three weeks ago to-day she was

placed upon the table for operation simply and solely for the removal of the appendix. She had no evidence whatever of hemorrhage or any other reason for meddling with the pelvis.

On opening the peritoneum I found the abdominal cavity filled with bloody serum and a number of fresh clots. After the serum was absorbed with gauze I went down to the broad ligament and found a small mass on the right ovary from which the blood was spurting. The broad ligament and the uterine end of the tube were clamped and the bleeding controlled. The tube on the right side was very much enlarged, dark red in color and projected upward toward the abdominal wall. The tube and ovary were removed, and I have them here for your examination.

The tube shows in its interior a mass of clot, which is undergoing absorption, because I have made sections of it and find it is nothing but blood clot. The mass on the ovary shows it to be a beginning embryo, which shows decidual tissue on section.

The tube is peculiarly interesting also, because it shows at this end a supernumerary fimbriated end. The patient admitted having missed two menstrual periods, and the uterus was enlarged to one-third more than the normal.

The appendix was removed at the operation, as it was originally intended to do. She has made an uneventful recovery.

She began menstruating on the third day after the operation, and as I have on other occasions allowed the uterus to be absolutely untouched where I have suspected pregnancy, I did not meddle with the uterus at the time of the operation, but as her temperature began to rise on the fourth day, I decided the best thing to do was to empty her uterus, which I proceeded to do. She had in the uterus this mass of tissue, which is in character that of a uterine mole. It does not show any placental tissue.

In the left broad ligament there was a small mass, of which I have here half. On section it proved to be a cartilaginous tumor with a calcifying centre.

In addition to this specimen I also wish to present to you a similar ectopic specimen from a patient of Dr. Stivers, which was removed last July.

DR. JOHN R. STIVERS: I first saw the case July 1st. At that time she had considerable pain on the lower left side. She should have been sick on June 28, but missed that period and the one previous. She had no bleeding from the



uterus whatsoever. All the clinical symptoms of pregnancy were present. I continued treating the case until the 10th, when she developed signs of collapse. The pulse became small and rapid, she had some fever and was at times delirious. She was then taken to the Memorial Hospital. In the afternoon the abdomen was opened, and about three ounces of bloody serum was found in the abdomen. The left tube and ovary were bound down tightly with adhesions, and a bleeding mass was found on the left ovary. This mass was contained in what appeared to be a rupture of the ovary itself. It measured about  $\frac{3}{4}$ -inch across. The tube had a slight purulent secretion in it, and was removed with the ovary.

The abdomen was washed out thoroughly and about two quarts of saline introduced and the patient on the sixth day after operation began menstruating. She at that time passed some clots, which were thrown out by the nurse, and were not examined. The specimen was hardened and a section taken through the area where this rupture occurred and showed decidual cells. The case appears to be one of ovarian pregnancy.

She made an uninterrupted recovery.

#### *Discussion.*

DR. W. F. CAMPBELL: What was the condition of the appendix?

DR. J. R. TAYLOR: The appendix had two constrictions and contained a quantity of fecal matter. The walls of the appendix were thickened, as is usual in all cases of recurrent appendicitis. The condition, as far as the appendix is concerned, had been running for about a year.

#### REPORT OF CASE: RECURRENT EPITHELIOMA OF THE ORBIT; PATIENT.

DR. J. A. LEE: This is a case of recurrent epithelioma about the eye. The patient was treated last April with the X-ray, receiving five treatments. I have not seen him since then until to-night.

The history that he gives is that he went into the hospital in March, having had an ulcer around the eye, with a clinical diagnosis of epithelioma, extending over a period of two months, and it was about the size of a half-dollar. The ulcer was excised by Dr. Kennedy and healed by primary union. In a very short space of time evidences of recurrence took place in the scar and a half inch on either side of the scar. The patient was given X-ray treatment for five times, and seemed to improve materially, and he was told to go home and to report back when the dermatitis which had been estab-

lished had subsided. If you will examine him you will find the condition here seems to be entirely eradicated.

I want to present here a photograph of a case that came on Dr. Wood's service at St. Mary's eighteen months ago. The case is interesting because it is one of cancer of the breast in a male with a previous history of a long existing point of irritation. The gentleman was a hatter, and had used in his business a hat block pressing against his breast. In due course of time that created a certain amount of irritation, which finally resulted in the formation of this pathological condition here. The fold of skin which you see pulled over there is not the result of any operation. There has been no operation on this case at all. The folded skin was due to the contracting tissues. The man was unable to raise his arm much more than a foot from his side.

Under X-ray treatment that fold of skin softened up, so that he could raise it in all directions. The ulcer healed up, the infiltration not entirely. Previous to the time of treatment he had a well developed metastasis in the lung, and after a certain time he died of that condition.

#### PAPER: X-RAY THERAPY; ITS LIMITATIONS.

BY DR. JOHN A. LEE.

#### *Discussion.*

DR. F. W. CAMPBELL: I wish I had the time at my disposal to give this paper the discussion which it merits. It is one of the papers that we need more of at the present time, in order to arrive at a correct conclusion of what use X-rays really are in malignant disease.

The paper is conservative, scientific and judicious. Nearly all of us, all general practitioners, who have not done much work in the X-ray have some idea as to what the X-ray will do in general. The question that comes before us is, what are its limitations, what will it positively do, and what are we doing in the field of experimental X-ray work? The literature on this subject is exceedingly conflicting. If you will read the reports in the journals that come from time to time, you will find that some men are curing nearly everything with the X-rays, others, like those men who are working in the Massachusetts General Hospital and have the benefit of the work of the Massachusetts Cancer Commission, tell you that they have never cured a case of primary carcinoma and never a case of recurrent carcinoma.

A practitioner of this town, a venerable gentleman, told me a couple of weeks ago, that he had

cured primary carcinoma of the breast, and that he had cured carcinoma of the uterus. When I thought that matter over I came simply to one conclusion, that either there was something the matter with his statistics, or something the matter with my technic, because I have tried the X-ray in both conditions in a number of cases, and have not arrived at any results. When reports are made of cases as cured, that subsequently fall into the hands of other men, and these men have to write their death certificates because they died of the disease of which they were reported cured, that kind of work does not serve to advance the progress of scientific medicine.

As to what the X-ray will positively do in my own experience. In the first place all X-ray workers report two classes of cases that received great benefit. First, the lupoid conditions of the skin, and second, the superficial epitheliomas of the skin. In these two conditions the X-ray is not only good, but the best, means we have of curing these conditions. I do not think any surgeon at the present time would attempt to cut out an epithelioma of the skin, because we can positively cure it with the X-ray, and we would get better cosmetic results for the patient.

In the field of experimental work, I think we may say that no primary carcinoma has been cured, but there are one or two things the X-ray does do. In the first place it is an excellent analgesic.

In a patient of mine suffering from recurrent carcinoma of the breast, who had been operated on two years previously, I having done at that time an extensive Halstead, it was necessary to give her a large dose of morphine every night, in order that she might sleep, the pain was so intense. After several treatments with the X-ray, I was able to control the pain and absolutely relieve it, and for the six months she lived she suffered no pain at all, and had no need to use morphine at night. The X-ray will relieve pain positively.

In the second place it will diminish the size of recurrent growths.

In another case of mine, where there was a recurrence of carcinomatous material at the base of the neck as large as one's fist, after two months' treatment it had been reduced about one-half in size. These are the only results I have been able to get with the use of the X-ray in recurrent carcinoma, and I am sure that while it does not cure these conditions, it relieves pain and prolongs life.

DR. G. L. BUIST: Dr. Lee has covered the

ground, taking up the superficial growths and the carcinomatous growths. In two of the three cases I showed here to-night the nodules had been reduced in size, and in one they had almost entirely disappeared, but, of course, neither of these cases is considered cured.

I do not think, as the other speakers have said, that we can claim we have a cure until these cases are under observation for a longer time than most of us have had them. I have only been treating these cases for eighteen months, and I can report no case of cure of recurrent carcinoma.

I think one important point that should be emphasized more than it has, is the fact that no case of carcinoma when first diagnosed should be treated by the X-ray before operation, unless it has gotten to the point where it is inoperable.

You saw in the cases of epithelioma some that had been cured, and also one case that was not. The treatment has been going on for some eight or nine months, and the condition has grown worse. We have had conditions of the same nature apparently which have been cured.

The case of tubercular osteitis certainly was a most favorable one for treatment. It was in the wrist, and it would seem that if X-ray treatment was going to be of benefit in a tubercular condition of that nature, the wrist was a favorable situation to try it, but the case apparently was unimproved.

The question of metastasis is an interesting one. The theory is that when you institute the treatment you have a breaking down of the cells, and also an endarteritis in the smaller blood vessels, and that you should not expect to produce any condition which would accelerate a metastasis.

In regard to the pain I endorse what has been said. About a month ago there were several cases reported where the pain was not relieved. In the cases of carcinoma of the breast that we saw this evening every case was relieved of the pain, but every case has had any amount of pain subsequently, not in the breast, but in the thighs and down the legs, and one in the feet.

If the pain in the legs is not due to a metastasis, to what is it due? The statement has been made that this is a condition of toxæmia. We do not know whether that is so or not.

On the point of pain, I think one case under treatment now illustrates that it certainly has an effect thereon—a chronic malignant case. There is a case at the Brooklyn Hospital of chronic rheumatoid arthritis, in which the involvement of both wrists just above the joint is



very marked. In that case I have treated one hand and not the other, they apparently having the same increase in size and pain. That patient has been almost entirely relieved in the hand under treatment and has obtained greater function.

Acting on the suggestion of Leonard, who has treated two cases of neuralgia, one involving one of the nerves of the upper part of the face, and the other the inferior dental, (he reports apparent cures in these two cases), we tried it in a case of sciatica, in which we had good results at first, the pain left the upper part of the thigh, but went down to the popliteal space, and has been treated faithfully without any result.

DR. J. C. BIERWIRTH: I wish to congratulate the reader of the paper on the method in which he has handled a very difficult subject, and the fair way in which he has presented his deductions. I think any one who has worked with the X-rays must come to the same or similar conclusions, as Dr. Lee has presented them, and as they have been stated by Dr. Campbell.

In summarizing the question as to the limitations of X-ray therapy which is, I think, a very fair way of bringing up the subject, after the number of years it has now been on trial, I would not feel inclined to be quite as aggressive as Dr. Campbell, and perhaps also not as aggressive as Dr. Lee. Personally I feel that the subject of X-ray therapy is too experimental to allow of any such definite conclusions. I fully agree with Dr. Lee as to its limitations in carcinoma; I fully agree with Dr. Campbell in his general deductions; but in justness and fairness I claim X-ray therapy is too experimental at present to allow us to form so definite a conclusion.

When we consider the subject of carcinoma, for instance, we must bear in mind the complex clinical picture which carcinoma presents. If you speak of carcinoma as one disease, I think you make a mistake, because the cases treated by X-ray therapy differ clinically in a marked degree, and my personal opinion is, that this is very largely due to the different cell arrangement which different cases present. Take for instance a very malignant case; we have carcinomata which microscopically can be recognized as extremely malignant—the pathologist would tell you it presents a cell formation of a very malignant type. Clinically speaking, if such a case is rayed, we find that case does badly.

I have had in my experience a case of primary carcinoma treated for two years that died recently—a perfectly operable case of the left breast, which had had an axillary involvement when it came to me. I submitted the entire proposition

of treatment fairly and squarely to the patient and her husband; so did several gentlemen in consultation, who agreed with me. The patient elected herself the X-ray treatment. The case is of extreme interest in that it is the only case I know of in a young, apparently healthy woman, perfectly operable, in which the diagnosis was confirmed by the microscope before the X-ray treatment was begun, and which was rayed from the beginning and had no other treatment. Dr. Murray examined the specimen and reported an extremely malignant type of cell arrangement.

Externally, as far as the left breast was concerned, at the time of her death, the tumor was one-third the size it was at the beginning, and to the sense of touch it seemed to consist of fibrous tissue only; but there had developed a large, glandular mass in the supra-clavicular region of the left side, which pressed upon the vessels and nerves at the root of the neck. She finally died from extreme dyspnoea and heart failure.

In this case, it is a question whether she would have lived longer, if an extensive Halstead operation had been done at the time she first presented herself to me, if we consider the fact of the already existing glandular involvement, and the microscopic findings of a very malignant type. We know that, as a rule, a case presenting such characteristics, in which a Halstead operation has been done, a recurrence is fairly certain in six months, and I question if such a patient would have lived any longer than two years; so that in considering the question of X-ray therapy in carcinoma, we should bear in mind what kind of carcinoma we are dealing with, and how malignant it is. The case Dr. Lee speaks of, a patient 62 years old, is interesting in bearing out this point. I think a patient of that age with slow growing malignant disease will in all probability show a greater improvement than a younger case of greater malignancy.

There is no question of the fact that X-ray therapy is a well established therapeutic measure to-day. It has passed out of the experimental stage, because the X-ray will do something that nothing in medicine or surgery will do, as evidenced by the cases of epithelioma which the different gentlemen have reported, as evidenced by the cases of lupus reported by careful observers, and as evidenced by the relief of pain without drugs, without doing harm. If you will realize what that means in many chronic diseases and where you have to resort to morphine with the misery it afterward brings, it is of immense value.

There has been too little work done by good observers in the experimental field. Theoretically speaking, there are many diseases which should be subjected to X-ray treatment. Its effect is, as far as we can theorize about it, of great stimulation to the normal tissues, and it seems to me that it should be of decided benefit in many glandular diseases. I do not know how much work has been done in enlarged prostate gland. It seems to me it should be used there. In mild varicose conditions of the legs it relieves the pain and a good many of the disagreeable symptoms. How much it cures I do not know. Varicose ulcers are quickly relieved of pain and heal rapidly. If we consider its effect on the vascular system at large, it is not very far to assume there is in all probability a chance for ultimate cure, but all this means years of experimental work.

We know it does not cure carcinoma. We know, in all probability, it cures epithelioma. We know it has a very valuable effect on pain which it relieves very promptly. We also know it may be of benefit in a great many other diseases, and we know further that it cures many skin diseases.

In regard to Dr. Buist's question as to the occurrence of pain along the course of the sciatic and other nerves, my own clinical observations are these: I think it is fairly well established that a considerable tissue metamorphosis goes on as the result of X-ray stimulation, producing an increased amount of tissue waste, which accumulates in the blood current and produces rheumatic pains. An increase, therefore, in the elimination of waste material should relieve the pains. You are all familiar with the drug, which has a very decided effect upon elimination, namely Piperazine. In all those cases where the pain is marked I would suggest the use of Piperazine. You get at once a very large increase in the urinary secretion and the pains improve rapidly. Theocin is another drug of value, and there are three or four other diuretics of the coal tar group which are very valuable in relieving this pain due to the accumulation of tissue waste.

What I wish to emphasize is that I fully agree with the deductions of Drs. Lee, Campbell and Buist. I simply wish to be not quite as emphatic in saying what we can and what we cannot accomplish with X-ray therapy; that the whole subject is too much in the experimental stage to allow us to arrive at any such definite conclusions.

*(To be continued.)*

## Brooklyn Medical Journal.

All communications, books for review, articles for publication, and exchanges should be addressed BROOKLYN MEDICAL JOURNAL, Library of the Medical Society of the County of Kings, 1313 Bedford Avenue, Borough of Brooklyn, New York.

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*Entered at Brooklyn, N. Y., post office as second-class matter.*

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BROOKLYN-NEW YORK, MARCH, 1904.

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### LOW MORTALITY RATE FOR THE PAST YEAR.

An unprecedentedly low rate of mortality prevailed during the past year in this city, the proportion being 18.15 for each 1,000 of population.

With due consideration for all other causes, the fact remains that weather conditions have undoubtedly influenced this result more than any other one factor. The past summer was remarkably cool, and at no time did the high death-rate which invariably accompanies and follows protracted periods of extreme heat, prevail.

The improved methods for preventing and treating summer digestive and intestinal disturbances, employed during the past few years, also are potent factors. A prominent practitioner recently said that it had formerly been a great pecuniary loss to him, even if otherwise practicable, to be away during the summer months, because of the large amount of illness among children, regularly prevalent during this season, but that this has been largely done away with through the improved hygiene, especially in the methods of feeding, in which mothers and nurses have been instructed by their physicians.

Improved public sanitary conditions, especially in the tenements, must be regarded as in part responsible for the lowered death-rate. Strict enforcement of the recently adopted tenement-house building laws will increase the good results, already operative, from this source. It is probable that the increased knowledge in which the public has been instructed concerning the methods by which tuberculosis is disseminated and the means by which it is prevented have already favorably influenced mortality statistics, and will in the future result in a still somewhat lowered death-rate.

We have no official records showing the influ-



ence of the diphtheritic antitoxin upon mortality statistics, but concerning its benefits there is no reasonable doubt.

At present leading newspapers have ceased to lend their influence against the employment of vaccination. The signs of a threatening epidemic have apparently faded away, after a season of vigorous employment of this preventive agent, and the anti-vaccinationist has temporarily retired.

In general, medical science may be said to have employed its methods wisely in efforts to increase healthful conditions of human existence. To its advance may be attributed no small part in the favorable showing of last year's mortality statistics.

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#### LESIONS OF THE LARYNX. ETIOLOGICAL FACTORS OF MALIGNANT ENDOCARDITIS.

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In a paper in the November (London) Journal of Laryngology, Rhinology and Otolaryngology, by Jobson Horne, M.D., two cases of malignant endocarditis are reported in which the primary infection was in the larynx. One case occurred in a man of fifty-seven years. At autopsy, the cusps of the mitral and aortic valves were the seats of ulcerations and vegetations. The larynx presented unmistakable evidence of having been the site of primary infection. The other case occurred in a younger subject who died at an earlier stage of the disease. Autopsy in this case was capable of disclosing not only that the larynx was the seat of the primary lesion, but also the site of the infection.

We believe that this is the first published report certainly establishing a connection between certain diseases of the larynx and malignant endocarditis, though the fact has been known to not a few Brooklyn physicians from the observation of one of their number, who at an autopsy upon a former patient found the identical condition which has been described by Dr. Horne. His observations were at that time offered freely to any who wished to utilize the facts. His opinion is, therefore, to be given due consideration in that he believes that a few cases of this kind occur in this city each year. The manner of the inception of the lesion in the larynx is that of a phlegmonous or oedematous laryngitis with symptoms of severe pain, obstruction to the passage of air and consequent dyspnoea. Swelling of the mucous membrane (the sub-mucous tissues are also involved) is visible by means of the laryngoscope.

These laryngeal symptoms may themselves cause a rapidly fatal issue, while, if the case proceeds to pus formation and ulceration in the laryngeal tissues, the inflammation may later become an etiological factor in the occurrence of malignant endocarditis.

Symptoms of heart weakness and albuminuria, as in acute tonsillar affection, may be present even during the first few hours of the laryngeal symptoms. Repeated incisions of the swollen laryngeal mucosa seem to produce better results than tracheotomy, or, if tracheotomy becomes necessary, repeated incisions with tracheotomy are preferable to tracheotomy alone.

Affections of the upper air passages have latterly received a great amount of attention regarding the part played by them in the etiology of systemic diseases. Evidence is accumulating to show that the upper respiratory tract is often the primary seat or the point of entrance of organic diseases.

We believe that no text-book on practice has as yet mentioned the acute and subacute inflammations of the larynx as occasional etiological factors in malignant endocarditis. Unequivocal evidence is now at hand to justify this view.

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#### IN MEMORIAM

DR. FRANK W. SHAW.

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ADDRESS BY J. A. MC CORKLE, M.D.<sup>1</sup>

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By the request of the members of a Committee from the Dispensary Department of the College and Hospital, I have been asked to say something in memory of our late co-laborer and friend, Dr. Frank W. Shaw. He was one of us, coming in and out with us, and we miss him the more, because of his genial nature, his sunny, hopeful disposition, his buoyancy of spirits, which made association with him a pleasure and a joy.

As a friend Dr. Shaw was loyal and true, and the number of his friends is simply measured by the number of his acquaintances. Of his enemies there were none. He specially rejoiced in the success of others—if any good fortune came to a friend or associate, it brought to him pleasure and nothing else. Jealousy and envy found no abiding place in his generous heart. Wherever found, however placed, his presence always commanded respect, further acquaintance insured admiration and esteem, and the union of these brings confidence and love.

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<sup>1</sup>Delivered before the Medical Students of the Long Island College Hospital.

Doctor Shaw was a man of strong convictions. His sense of honor was extremely keen, and any shadow of variance from the truth was extremely obnoxious to him, and whenever he decided that a course was right, he entered upon it and continued in that course to the end whether to his advantage or disadvantage. He was a man of excellent judgment, possessing in a marked degree that rather rare commodity—good common sense, making his judgment valuable and his work effectual.

In his professional work he was specially successful. Only a few days ago in conversation, a gentleman who had every opportunity of knowing the skill and technic necessary for intubation said, that he was one of the ablest men in this department of surgery in the city of Brooklyn.

There was no home, however lowly, no family too poor but could and did command his presence and skill night or day.

Some years ago Doctor Shaw decided to direct his professional energy in the department of the diseases of children. A more fitting choice could not have been made. His humanity commanded the esteem and admiration of men, and his heart the confidence and affection of children, for children in their innocent ignorance rarely make any mistake in their general estimate of human kindness. You have had an opportunity, and I congratulate you on that opportunity, of seeing his work in this department. His tact and skill in the management of children was wonderful, and his ability in arriving at a correct diagnosis, excellent.

Doctor Shaw possessed another most excellent trait, that certain something we call tact. That something which can not be taught in the lecture room, can not be acquired, and is as much a part of a man before he studies medicine as after graduation. The evidence of its possession is found in the lives of many successful men.

It was at the bedside of the sick that Doctor Shaw's personality showed most brilliantly. Under all circumstances, no matter how sick the patient might be, there was found some symptom that was better to-day than yesterday, and there was always left with his patient the pleasing thought "to-morrow will find me better than to-day." Thus he used to the utmost one of the strongest remedial agents we have—the element of hope.

To the younger members of the profession his life ought to be an excellent example—his devotion to duty, his earnestness of purpose, his

conscientious discharge of all work made him an example worthy to be followed. To the older members of the profession his life was a whole-some joy, an abiding pleasure.

As we grow older in the profession we become more and more jealous of our guardianship. By observation and practice we learn to glory in its wonderful achievements, and we stand in awe of its marvelous possibilities. When the mantle of our profession falls upon such shoulders, there will be no fear of its ever being found trailing in the dust.

In reviewing, however briefly, a life like that of Dr. Shaw's, the thought involuntarily arises, what might he have been had his life been spared to full maturity. The conjecture is easily answered, that with his excellent judgment, with his devotion to duty, he would simply have gone on increasing in wisdom and knowledge, strength and power, with the years, and the close of life would have found him rich in honors, affection and esteem—a fitting reward for a life well spent.

When the soothing influence of time shall have taken away the shock of his sudden, accidental and untimely death, those who knew him well and loved him will remember him as the devoted son, the affectionate brother, the loyal friend, the splendid physician, and above all as the honest, earnest, manly man.

FRANK WINFIELD SHAW, M. D.

BY WILLIAM SCHROEDER, M.D.,

Chairman of the Historical Committee.

Dr. Shaw's professional life had been devoted to the best interests of the healing art, and to the good of his fellowmen. He was born on November 5, 1861, at Eastmanville, Ottawa County, Michigan. His father was Comer B. Shaw, his mother Jennie Whitfield, both of Ransomville, Niagara County, New York. His early education was received in the Public and High Schools of Lockport, N. Y., and in 1881 he began the study of medicine under the direction of Charles N. Palmer, M.D., and graduated M.D. from the University of the City of New York in 1885. During the following year he was interne in the Presbyterian Hospital, New York. He then entered upon the practice of medicine in this city in 1886, remaining here until his death, January 9, 1904.

Dr. Shaw was unmarried. He gave diseases peculiar to children his special attention, occupying the Chair of Diseases of Children for five years in the Brooklyn City Dispensary. He served three years in the Helping Hand Dispensary,



two years in the Atlantic Avenue Dispensary, ten years in the Brooklyn Orphan Asylum, four years at the Polhemus Memorial Clinic and the Chair of General Medicine, twelve years at the (Seney) M. E. Hospital and four years at the Norwegian Hospital. For a few years he was Lecturer for the Brooklyn Red Cross Society.

He was a member of the Medical Society, County of Kings, 1888-1904; Brooklyn Medical



DR. FRANK W. SHAW.

Society, 1900-04; The Associated Physicians of Long Island, 1901-04; Kings County Medical Association, Hospital Graduate Club, and the Brooklyn Pediatric Society.

His medical papers were the following:

1893—Diseases of the Alimentary Canal.

1895—Broncho-Pneumonia in Children.

1897—Conditions of Diagnostic Value in Infancy and Childhood.

1898—Thermic Fever and Heat Prostration, Hospital Reports, Seney's, 1898.

1903—Congenital Hypertrophic Stenosis of the Pylorus, *Brooklyn Medical Journal*, p. 211.

## RESOLUTIONS ON DEATH OF DR. FRANK W. SHAW.

BY THE SECTION ON PEDIATRICS, MEDICAL  
SOCIETY, COUNTY OF KINGS.

*Whereas*, The great Ruler of the Universe has removed from our midst our worthy and much esteemed fellow-practitioner, Dr. Frank Whitfield Shaw; and

*Whereas*, The very intimate relation held by him through nineteen years of professional life, and years of membership in this society, makes it most fitting that we record our appreciation of him; therefore

*Resolved*, That the sudden removal of such a man from our midst, leaves a vacancy that will be deeply realized by all the members of the society, and will prove a great loss to the profession in general and his many friends.

*Resolved*, That a copy of these resolutions be spread in full upon the minutes of this society, and that we express our deep sympathy with his afflicted relatives.

Dr. Frank Whitfield Shaw was born at Eastmanville, Ottawa County, Michigan, November 5th, 1861. Died at Brooklyn, January 9th, 1904.

When quite young his parents removed to Lockport, Niagara Co., N. Y., where he resided until coming to Brooklyn in 1887. His early education was received in the Public Schools and High School of Lockport, receiving a Graduating Diploma from the Board of Regents, State of New York, in 1881.

Under the Preceptorship of Dr. Charles N. Palmer, of Lockport, he began the study of medicine in 1881, graduating from the University Medical College, New York City, in 1885.

Among the many positions held by him during his professional career were:

Interne Presbyterian Hospital, New York City, 1885-1886.

Department Diseases of Children, Brooklyn City, Helping Hand and Atlantic Avenue Dispensaries.

Assistant Attending Physician Methodist Episcopal Hospital, 1891-1904.

Attending Physician (Diseases of Children) Brooklyn Orphan Asylum, 1894-1904.

Attending Physician Norwegian Hospital, 1899-1904.

Attending Physician (Diseases of Children) Polhemus Memorial Clinic, 1899-1904.

Lecturer, Brooklyn Red Cross Society.

Among his published articles were:

1893. Diseases of the Alimentary Canal.

1895. Broncho Pneumonia in Children.

1897. Conditions of Diagnostic Value in Infancy and Childhood.

1898. Thermic Fever and Heat Prostration.

He was a member of the following societies:

Medical Society County of Kings, 1883-1904.

Kings County Medical Association.

Hospital Graduate Club.

Associated Physicians of Long Island, 1901-1904.

Section on Pediatrics, K. C. M. S., Vice-President 1903.

Brooklyn Medical Society, 1900-1904.

WILLIAM SCHROEDER, JR.,

WILLIAM LEWIS CHAPMAN,

LOUIS C. AYER,

Committee.

## OBITUARY.

FRANK W. SHAW, M. D.

At a general meeting of the Hospital Graduates Club, of Brooklyn, held at the residence of Dr. L. Grant Baldwin, January 16th, it was resolved to publish in the *Brooklyn Medical Journal* the following obituary:

On January 8 Dr. Frank Whitfield Shaw, a well known Brooklyn physician, died in this city. The life of a doctor is not an eventful one in the sense of great happenings, but it is one which, if his character is strong and sweet, brings him into the closest touch with his friends and patients.

We who have known Dr. Shaw from his boyhood and have traveled the same paths with him, loved him for the qualities which brought him close to us, and held our affections throughout his life. Everyone who came in contact with him, either for a few minutes or in an association of years, felt the same way towards him.

Dr. Shaw was born in Lockport, N. Y., in 1861, and studied medicine in the University of New York, graduating in 1885. After finishing his theoretical study he served as interne in the Presbyterian Hospital in Manhattan for two years, and in 1887 began to practice in Brooklyn. The early years of his professional life during the period of waiting for patients were not wasted. Clinical work in the Brooklyn City Dispensary, reading and the close study of such cases as came to him brought their sure reward. His first important appointment was that of assistant visiting physician to the Methodist Episcopal (Seney) Hospital. Here his opportunities for clinical study were broadened, and other physicians be-

came acquainted with his careful, painstaking and systematic method of work. The appointment as visiting physician to the Norwegian Hospital followed in the course of time, and he held both of these places at the time of his death.

From the earliest years of his practice Dr. Shaw had a special interest in the diseases of children, to whom his personality was particularly acceptable. He intended to devote himself exclusively to this branch and accepted an appointment in the Polhemus Clinic.

His friends, his patients, nurses and the medical students whom he taught were at once impressed with the simple kindly truthful soul that dwelt within him, and all recognized his painstaking exactness with his patients and his considerate, frank and genial association with his friends.

These lovable traits will keep his memory always fresh in the minds of his intimates and friends.

HENRY H. MORTON, M.D.,

J. SCOTT WOOD, M.D.,

GEO. H. TREADWELL, M.D.

FRANK W. SHAW, M.D.

At a meeting of the Society of Ex-Internes of the Methodist Episcopal Hospital, the following address was presented and resolution passed:

Dr. Frank W. Shaw was born in Lockport, N. Y., in 1861. He graduated in medicine from the University of New York in 1885, and from the Presbyterian Hospital, New York, in 1887, after two years' internship. He began practice in Brooklyn in 1887, and was appointed on the staff of the Brooklyn City Dispensary. In 1892 he was appointed Assistant Attending Physician to the Seney M. E. Hospital, which position he held at the time of his death. He was also Visiting Physician to the Norwegian Hospital, to the Brooklyn Orphan Asylum, and Physician to the Department of Diseases of Children in the Polhemus Clinic. He was a member of the Kings County Medical Society, the Brooklyn Pathological Society, the Associated Physicians of Long Island, the Hospital Graduates' Club, and the Crescent Athletic Club.

Dr. Shaw died January 8, 1904, at the M. E. Hospital, where he had served for the last twelve years of his life. He died in his prime, when life was full of promise. He was a man who made many friends, and who endeared himself to his patients by his high degree of professional skill and his frank and genial character. He was a



man of simple tastes, honesty, candor and great kindness. His memory is preserved in the hearts of many, whose burdens he had made lighter, and into whose lives he had brought a measure of gladness. His death is the going out of a sweet and lovable soul.

*Whereas*, in the death of Dr. Frank W. Shaw, the medical profession has lost one of its valued members, it is

*Resolved*, That the foregoing address be adopted as an expression of the sentiment of the Society of Ex-Internes of the M. E. Hospital, and that a copy of this resolution be sent to the family of Dr. Shaw, and to the *Brooklyn Medical Journal* for publication.

## OBITUARY NOTICE.

DR. WILLIAM D. WOOD.<sup>1</sup>

The loss of any member of our Society is always an occasion for sorrow; and, if usefulness and loyalty to one's profession should form prominent constituents in the personal character of a physician, we have had a striking example of it in the life of Dr. William D. Wood, of Jamaica, who, at the advanced age of 82, passed away on the fourth day of the present month.

The laboring oar of daily practice had been continuously in his hands since 1855; nor was it laid down until a fortnight before his death, when, full of years, he reached the goal of his final rest.

A life thus extended beyond the limits of two generations, and covering a period of most important transitions in the social and professional annals of a community, does, from that fact alone, become a more conspicuous object for comment and reflection. Having known him for over forty years in the varying positions of a member, a secretary, and a president of this Society, it is a pleasure, apart from any dictates of personal friendship, to be able within the limits of an official record, as your Historian, to certify to the full measure of duty with which he acquitted himself in all these multiple relations to his profession. A broader estimate of his character as a public spirited citizen is enshrined in the memory of his neighbors, and calls for no special portraiture in this brief sketch of his professional career.

Dr. Wood was born in England, at Horncastle,

in Lincolnshire, on the 2d day of August, 1821. After devoting three years to the study of medicine in his native land, he came to the United States in 1847 and located in Vermont, where he resumed his studies at the Castleton Medical College, from which he was graduated in 1855, and then came to Jamaica, where he finally settled. His practice, like most country physicians, was extensive in Jamaica and the surrounding villages, but general in character. Specialism had not yet attained to its modern proportions, nor did it present sufficient allurements to win him from the larger field upon which he had embarked. He preferred the broader territory of general practice, requiring him to keep in touch with such advances as were made in all departments of medicine, rather than to confine himself exclusively to any particular one. In this respect, he but followed the ordinary custom of his contemporaries.

Sixty years ago that was the rule of general conduct for beginners, who were led to it by analogy with the chairs of instruction in the medical colleges of that day. These chairs were few in number, but comprehensive in their scope. Each one covered a field now subdivided into many derivative branches. However broad the subject, one chair was then deemed sufficient to cover its demands for instruction. The profession was satisfied and accepted this scholastic scheme as the best of its kind. Under it the magistral topics of anatomy, physiology, chemistry, obstetrics, theory and practice, were treated in a wholesale, all-round way. They had not yet been practically subdivided in medical schools, and students would have had no opportunity, even if they had chosen, to begin their practice with preponderating qualifications as specialists.

These limitations in instruction did not prove, however, as much of a barrier to professional success as some might infer, for there were eminent physicians, as distinguished for their skill, in those days, as in ours. They labored under disadvantages which time and science have removed. Nevertheless, these labors brought them brilliant success, reflecting a greater merit than can be rightly appreciated by our more highly favored generation, who have so many co-operative aids in instruments, hospitals, good nursing and easy changes of environment for patients.

Dr. Wood was the last of a group of venerable physicians in Queens county, who represented the old family physician of former times. To them were committed the oracle of the Law for the sanitary guardianship of the household. Their

<sup>1</sup>Read before the Semi-Annual Meeting of the Queens-Nassau Medical Society, October 27, 1903, by John Ordronaux, of Roslyn, Historian of the Queens-Nassau Society.

presence was deemed indispensable at births, and in all serious diseases. Their memories were the repositories for the vital statistics of the community with all their varied accompaniments of personal history. They treated diseases of families successfully, because they knew the constitution and tendencies of every child born in them. They quieted family jars and differences. They often pacified troubles arising out of church matters, neighborhood quarrels and school government, and acted as moral arbitrators wherever scandal existed, and disgrace was threatened. Their functions extended even beyond this, for their opinions were solicited on questions of marriage, divorce, travel, education and testamentary capacity. Going so often behind the curtain of private life, they stood alongside of the clergyman in his sacred offices, as the father confessor of the household. They knew all its secrets and held the issues of life, health and happiness in their hands.

These old family physicians seem to have received the blessings of Biblical patriarchs. Their lives were similar in the offices of Faith and Social Service. They toiled and moiled without tiring, in summer heat and winter cold. All the same to them were stormy nights, bad roads, long rides, snow drifts, small fees, dilatory payments—some of the latter even in truck and farm produce. All the same to them were these trials to comfort, convenience, to family support and the maintenance of genteel living. Wherever they went they carried health, strength and good works with them to the end of life. Nothing daunted, nothing discouraged them. Age had no arithmetical significance in the calendar of their lives. They were always on the go, always willing to go, and with few broken threads in daily vigor, they went and went on, until they went to pieces.

Of the many old family physicians of Queens County whom I have personally known, Dr. Davidson, of Hempstead, lived and practiced until past 90 years of age. Dr. Webb, of the same place, lived beyond 80. Dr. Townsend, of Glen Cove, until past 80. Dr. Creed, of Queens, until past 80, and Dr. Nathan Shelton, of Jamaica, until past 90. There were doubtless others unknown to me who attained to similar ages. All these gentlemen had at various times been members, and some of them officers of this Society. Such lives, we should say, were very wearing in their character, but they wore long because they were of that kind which only fatigues, and does not damage the body.

I have spoken of Dr. Wood as the last of a

group of old family physicians whose memory is still kindly cherished in the households of this county. With a practical mind, not given to theorizing or closest speculation, he followed as an all-around physician the rule and formula of practice loyally, and according to the established canons of his profession. And while thus discharging the duties of a many-sided vocation, he faithfully served his Maker as a Church member and officer, recognizing in his daily labors that the ministry of the body is a co-ordinate branch of the ministry of the soul, and that consecration to the service of either is a consecration to the service of both.

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## CORRESPONDENCE.

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### THE X INGREDIENT IN PRESCRIPTION.

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*Editor Brooklyn Medical Journal:*

The Health Department has recently called to public attention the dangers which lurk in dust. We, of all men, know that dirt is the happy home of our acquaintances, the micro-organisms—their winter ulster, their spring overcoat, their summer flannels. Yet possibly we don't realize that in making out a prescription the adjuvant *dust* is written between the lines.

Take a bottle from a shelf where it has been standing a few days, remove the cork and wipe around the lip with a bit of clean gauze—result, dust. A fluid poured, powder or tablets shaken from that bottle would have carried things not meant to be contained in the formula. There is room for a little cogitation here.

Try a few "lip-rubs" in a drug store. No matter what standard of cleanliness is maintained—even should the cork of each bottle be removed every day and the lip rubbed around with a damp cloth, the tendency would be to push a little dirt each time into the neck. When we really consider this subject it's a bit offensive to our aseptic consciences, isn't it?

What is the remedy? Look around the afore-said drug store. Many bottles are in glass front cases—that helps, makes the settlement of dust much more slow, yet still sure. Some few bottles have glass caps, covering cork, lip and neck—these protect well, provided that the lower edge rests snugly upon the bottle shoulder. Every dispensing bottle should be provided with such a cap, and if it be a matter of expense there is an opening for an enterprising supply firm to manu-



fracture caps of stiff, oiled paper to fit all sizes of necks and shapes of shoulders.

While the bacilli, spirilli and cocci are ever for free trade, it is to be hoped that our druggists will rally under the banner of protection.

GEORGE F. LITTLE, M.D.  
469 Clinton Ave., Brooklyn,  
February 5th, 1904.

## MEDICAL NEWS.

EDITED BY CLARENCE REGINALD HYDE, M.D.

*It is earnestly hoped that all members of the profession possessing news concerning themselves or their friends, which would interest others, will communicate the same to the News Editor before the 9th of each month. Items for this department should be sent promptly to Clarence Reginald Hyde, M.D., 126 Joralemon Street.*

Dr. Frederick J. Shoop, of 316 Cumberland Street, has been ill at his residence for three weeks with an infected hand and axilla, having accidentally pricked his finger while opening an abscess.

The annual dinner of the Kings County Hospital Alumni Association will occur February 25, 1904, at the Oxford Club. An unusually pleasant evening is anticipated. The officers of the Association are Charles B. Bacon, president; Linn Emerson, vice-president; William Maddren, secretary and treasurer.

A regular meeting of the Alumni Society, St. John's Hospital, Brooklyn, was held on Saturday evening, January 31st, in the County Medical Building at which Dr. W. S. Simmons read a paper based on a series of cases in which Typhoid Fever and Appendicitis occurred simultaneously. Dr. W. S. Hubbard reported a case of Neurasthenia; Dr. W. H. Rankin one of Typhoid Fever with Perforation, simulating Appendicitis, and Dr. W. S. Simmons one of Rupture of a Post-cecal Appendicular Abscess, following Typhoid Fever. Drs. Hubbard, Rankin and J. Elliot Langstaff discussed the paper of the evening. General remarks followed the reports of cases. The President, Dr. R. S. Royce, was in the chair, with the following members present: Drs. Simmons, Hubbard, Rankin, J. Elliot Langstaff, Knight, Bartow, Happe, and Langstreet (secretary).

At the last annual meeting of the Staff Association of the Dispensary of the Jewish Hospital, at the Unity Club House, the following officers

for 1904 were elected: President, Joseph Merzbach; S. R. Blatteis, vice-president; David Davidson, secretary; Jacob Long, treasurer. The Association has been in existence for over two years, and at present numbers twenty-two members. At each monthly meeting, following the business program, there is a scientific session, at which papers are read and patients and instruments demonstrated. A collation followed in the dining room of the Unity Club. The majority of members are also members of the Kings County Society. The Dispensary is located at 70 Johnson Avenue, and during 1903 attended to 15,000 calls.

The sixth annual meeting of the Associated Physicians of Long Island was held at the Library building, Saturday, January 23, 1904. After the annual business meeting and the election of officers for 1904 there was a scientific program in charge of Dr. Frank West. Papers were read by Dr. Adolph F. Erdmann, on "Ethyl Chloride as a General Anesthetic," Dr. James P. Warbasse on "Some Observations on the Treatment of Fractures," and by Dr. Charles H. Goodrich on "Inflammation of the Femoral Vein as a Complication in Medicine and Surgery." A dinner followed at the Union League Club at seven o'clock, at which the president of the Association, Dr. William H. Ross, of Brentwood, was toastmaster.

The Chicago Medical Societies are combining to fight the anti-toxin trust, composed of three large drug houses, and controlling all the anti-toxin output. Lately the trust have advanced prices nearly 100 per cent. The Chicago societies brand the trust as "trafficking in human life."

Health Commissioner Darlington announced that the Board of Health has unanimously voted to appoint Mayor Low's ex-Commissioner, Ernest J. Lederle, Ph.D., as consulting sanitarian to the Department. Dr. Lederle will sit as a member of the Advisory Board in that capacity. The new honorary place given to Dr. Lederle will be held by him jointly with Prof. Charles F. Chandler, of Columbia University.

Surgeon-General Rixey, of the Navy, is hopeful of bringing the marines and sailors now at the Isthmus through their siege of duty without fever fatalities. He says: "Up to the present time there has been little or no fever among the American forces. This good record is probably accounted for by the fact that no previous expedition has been so well equipped with a view to warding off disease and protecting the health of the men. One of the new features of the outfit of each ship

was a large quantity of mosquito netting. Strict orders have been issued that all the men sleep under the netting, and that it must be used while men and officers are on guard duty. This is the first time any systematic effort has been made to protect our men from the attacks of mosquitoes. Now that we are familiar with the dangerous qualities of this disease-carrying insect great precautions are taken throughout the service to guard against its bites. All the camp sites on the Isthmus were selected with the utmost care and regard for sanitary conditions. Our officers had advance information as to the most desirable places for establishing camps, and in this way had a great advantage over previous landing forces."

The population of the Borough of Brooklyn has increased by 43,000 the last year, and although last winter was extremely mild, the increase in the death list for the last thirteen weeks, as compared with the corresponding period twelve months ago, is but 552.

## BOOK REVIEWS.

INTERNAL SECRETIONS AND THE PRINCIPLES OF MEDICINE. By Charles E. deM. Sajous, M.D. Vol. I. Col. front., xxvi, 800 pp., 18 pl. 8vo. Phila., F. A. Davis Co., 1903. Price: Cloth, \$6.00.

If long and carefully considered reviews of this remarkable work had not already appeared in many other journals, it would be profitable to give space for an extended discussion of the propositions that Dr. Sajous has here laid down. As it is, so much time has elapsed since the appearance of the book that a mere outline of the author's principal contentions must suffice.

We may briefly sum up the gist of the matter by stating that Dr. Sajous claims, 1st, that the adrenal bodies furnish an oxidizing substance which, circulating in the blood and lymph, supplies the source of muscle activity, of nerve energy, of gaseous interchange in the lungs, regulates the vascular tone by acting in the place of the vaso-constrictor nerves, and in a word is the source of all vital activity; 2d, that the anterior pituitary body, acting through the cervical sympathetics and their continuations, the splanchnics, regulates and controls the adrenal activity; and 3d, that the secretion of the thymus and thyroid glands supplies the nourishment on which the pituitary bodies are supported. He goes so far as to claim that the hemispheres and cerebellum are merely the seat of conscious control, the mechanical center of all physiological activity and essential nervous force being resident in the posterior pituitary body.

He takes up the internal organs seriatim, discusses the probable nature of their internal secretions, and proceeds to weld each to the other and all to the adrenals. The leucocytes are credited with no small share in the completed scheme, as they are argued to be instrumental in elaborating hemoglobin, myosinogen, peptones and fibrinogen, these substances entering into the formation of the granules and being distributed through the mitomata, which Dr. Sajous believes to be minute canaliculi.

The logical conclusion from such premises is that all disease of whatever origin is a manifestation of either adrenal over-activity or insufficiency, and the attempt is made to bring forward sufficient proof.

One has but to glance over the book to be impressed with the enormous amount of material that has been collected and digested, the very immensity of which demands a respectful consideration of the theories propounded, while a careful perusal convinces one that the structure is erected on a basis of facts. Nevertheless, the glittering superstructure of this Aladdin's palace is too speculative to be entirely convincing. The very simplicity of the theorem provokes doubt. One feels that the author has grasped a great idea but that he is still far from the reality. The value of the work lies in the suggestion of entirely new lines of thought, and the investigation which such suggestion is bound to stimulate. While we cannot subscribe to Dr. Sajous' conclusions in their entirety, we can, however, accord unstinted praise to the scholarly research and patient investigation that have such a volume for their monument.

HENRY GOODWIN WEBSTER.

SAUNDERS' MEDICAL HAND-ATLASES. ATLAS OF THE EXTERNAL DISEASES OF THE EYE. Including a Brief Treatise on the Pathology and Treatment. By Prof. Dr. O. Haab. Authorized Transl. from the German. Second Edition, Revised. Edited by G. E. De Schweinitz, A.M., M.D. Phil., N. Y. and Lond., W. B. Saunders & Co., 1903. 232 pp. II., 47 col. pl. 8vo. Price: Cloth, \$3.00.

The reviewer has the pleasant task of reading the second edition of External Diseases of the Eye. As in the first edition, no pains have been spared by the publisher to have the book present a neat and artistic appearance. The clinical histories accompanying the plates are brief, yet complete enough to give a definite idea of the cases under consideration. The comments, added by the editor, considerably enhance the value of the work. By an oversight on p. 106 "cosmic" is used instead of "cosmetic."

JAMES W. INGALLS.

ASEPTIC AND ANTISEPTIC PREPARATIONS AND TREATMENT OF EMERGENCIES OF THE ABDOMINAL SURGICAL OPERATIONS. By George Wackerhagen, M. D. New York, E. R. Pelton, 1904. 44, 8vo. Price: Cloth, \$1.00.

The book before us is a handy and useful reference work for the surgeon, the assistant and the nurse. So far as we can find, no one has set out heretofore to give in so convenient a form those exceedingly important directions regarding preparation for operations, which every one who is to take any part in surgical work must know and follow, and which, unless they can be readily referred to, are sometimes forgotten, especially by those who cannot avail themselves of the trained staff of hospital assistants in their work. The plan and index of this handbook serve to make the matter of any topic easily found, and the directions are given in so concise and forceful a style that there can be no misunderstanding. The experience of the author and his careful consideration of the frequently perplexing questions which arise in post-operative treatment, make the little book an exceedingly valuable addition to the equipment of the assistant, and it should be the *vade mecum* of the surgical nurse.

W. S. H.



# BROOKLYN MEDICAL JOURNAL

VOL. XVIII.

BROOKLYN-NEW YORK, APRIL, 1904.

No. 4.

## ORIGINAL ARTICLES.

### SOME OBSERVATIONS ON DISEASE OF THE THYROID, WITH AN ANALYSIS OF 28 CASES.

BY HENRY G. WEBSTER, M.D.

Presented at a meeting of the Brooklyn Pathological Society Jan. 14, 1904.

My excuse for burdening you with a paper on a topic which is by no means new is not that I have anything startling or original to offer, but that recent publications have attracted my attention to the thyroid gland and its functions, and, on looking up the subject, I find a number of cases, 31 in all, that have not as yet been published and an analysis of which may be useful. I am indebted to the kindness of Drs. Pilcher, Fowler, Bogart, Butler and Matheson of the Methodist Hospital for permission to use the records of cases occurring in their services.

It is only in recent years, especially since the advent of thyroid preparations in the treatment of cachexia strumipriva as indicated by Reverdin, and more recently in the cure of myxedema, that the thyroid has possessed any but a surgical interest; but latterly, parallel investigation of the pituitaries, thymus, adrenals, and parathyroid glands, of the pancreas, spleen, liver, kidneys, testes, ovaries, intestines, parotids, and even of the leucocytes tends to show a correlation of the internal secretions of these organs that bids fair, if substantiated, to revolutionize our conceptions of physiology and therapeutics.

By way of introduction to the subject, a brief glance at the accepted facts in regard to the gland is permissible.

Anatomically, it consists of two lateral lobes and a connecting isthmus, the former lying to either side of the trachea on a level with and below the thyroid cartilage, the isthmus being in front of the second and third tracheal rings. Not infrequently a third lobe, the pyramid, rises mesially from the isthmus to the hyoid bone. It sometimes is separate. Four smaller bodies, almost always paired, the parathyroids, lie external to the lateral thyroid lobes. In passing it should

be emphasized that in all probability these parathyroid bodies are independent physiological entities, quite distinct in structure and function from the thyroid gland, and, according to Benjamins, of great physiological importance. Accessory thyroids are not infrequent, notably in the substance of the tongue and about the hyoid bone.

Histologically the thyroid consists of a loose connective tissue stroma rich in blood vessels and continuous with the capsule. Its interstices contain irregular cavities lined with a single layer of cuboidal epithelium and containing a colloid substance believed to be a secretion of the epithelial cells. Abundant lymph spaces also occur.

The gland is developed from the primary branchial cavity in close approximation with the pituitary bodies. In the foetus it is small, developing with adolescence as the thymus shrinks, and tending to atrophy after middle life. The nerve supply is from the vagus and sympathetic systems. The blood supply is particularly noteworthy, the total amount being estimated at almost that of the brain.

The gland is subject to a variety of pathological changes. Its structure permits of either hypertrophy of the connective tissue, vascular or glandular portions, resulting in hypertrophy, hyperplasia, congestion, cystic degeneration or atrophy. Primary inflammatory and suppurative conditions are infrequent, but may result from bacterial invasion in infectious diseases like typhoid, or variola, or from trauma. Malignant neoplasms occur, sometimes as metastases, rarely as primary growths. Roger Williams notes primary carcinoma in 1 in 1,043 and sarcoma once in 1,266 cases. The sarcomas are usually spindle cell, and death has almost always followed operation by a very few days (Tippany and Laurier). Wells has reported three cases of neoplasm comprising both carcinoma and sarcoma with simple and combined metastases.

It seems evident that the gland supplies an internal secretion, acting either generally through the body or locally in the gland. That the former is the more reasonable supposition may be argued from the effect of thyroid substance supplied to subjects in whom disease or interference has de-

stroyed the organ, as well as from the results of transplantation of the gland, and from the excess of efferent over afferent blood supply.

According to Baumann, this secretion, which may be the colloid alone or in some combination, has the following physical characteristics: It is dependent on an iodine compound, iodothyroidin, a substance having no proteid reaction, containing much nitrogen, and 5% phosphorus in organic combination (possibly nucleic acid). Gautier has found arsenic, but believes the iodine to be the active component. It is prepared from the fresh gland by boiling with sulphuric acid, or treating with artificial gastric fluids. Only a part is free iodine, the remainder being combined with an albumin and a globulin. Chittenden has shown that it passes through the stomach unchanged.

Thyroid extract has been used with good results in the treatment of myxedema, cretinism, exophthalmic goitre, simple goitre, obesity, agalactia, alopecia, psoriasis, insanity, the nervous and circulatory disturbances of the menopause and puberty, acromegaly, and muscular atrophy. To these may be added a long list comprising almost the entire practice of medicine, where the gland has failed to work. The most constant results accrue in myxedema and after ablation of the thyroid, though even here it sometimes fails. The dose may be put down as the equivalent of one lobe from a young sheep daily, more or less. It would seem that the best results should follow the use of a preparation containing as much of the gland as possible, and preserved so as to prevent contamination by bacteria and such putrefactive agents. However, Baumann claims remarkably good results from his thyroidin.

A brief review of the physiological action of thyroid secretin as related in the literature shows the accepted belief to be that administration of the gland or its extract produces, 1st. increased metabolism with corresponding increase of the nitrogen coefficient, resulting in increased temperature and loss of weight; 2d. growth of the skeleton in the young; 3d. increased activity of the mucous membranes, skin and kidneys; while in excess it produces the untoward results outlined in three of the cases to be mentioned, and which Notthaft, quoted by Sajous, classifies as follows: 1. Rapid loss of weight. 2. Dyspnoea with swelling of the neck. 3. Exophthalmos with Stellwag's and von Graef's signs. 4. Thyroid enlarged, pulsation, and a thrill. 5. Tremor of tongue and fingers. 6. Apex displaced outward, pulse 120. 7. Cough. 8. Mental depression. 9. Polyuria and glycosuria.

Because of the appearance of a similar train of symptoms in connection with an enlarged gland in Graves' disease it is generally stated that this argues an excessive thyroid secretion as one of the primary causes of this little understood condition. This is, of course, taking for granted that the thyroid is the storm centre, and leaves out of consideration the relation of that gland to the other organs furnishing internal secretions. We should expect, if the thyroid secretion is uniform in its physiological effect, to find always a rise of temperature, rapid pulse and increased respiration; whereas reference to the cases to be cited shows marked subnormal temperature in four and a low average in some of the rest. Operative interference, too, as indicated in the series of cases of simple goitre, may produce sudden and extreme depression of temperature, as in cases 5 and 9, suggesting that interference with the thyroid produces some untoward results in allied structures.

Turning now to a consideration of the cases at hand, we find a series of 13 of goitre treated surgically, 3 medically, 12 of exophthalmic goitre, of which 2 were subjected to operation, and 3 of obesity treated by thyroid extract—32 in all.

Taking up first the goitre cases: There were 4 males and 12 females, 30 per cent. and 70 per cent. The ages ran from 19 to 49 years, both limits in women. Of predisposing causes in the family history there are not many—one patient told of carcinoma in the family and one of rheumatism. If the number of years' duration of the disease be subtracted from the patients' ages at the time of coming under treatment we find that with one exception all commenced under 30 and after 12 years, the average age being 21. One patient reported the tumor as present since early childhood. One traced the growth to her first pregnancy. The occupations and places of residence have been so varied that conclusions on these points are valueless. Diseases of childhood, too, while sometimes reported, are mostly noted as negative. The pathologist's reports show 3 to have been cystic, 6 hypertrophic, 3 vascular, and 2 mixed. Of the 3 medical cases 2 were hypertrophic and 1 hyperplastic. The right lobe showed the greater enlargement in 9 instances, the left in 4, and the growth was more nearly symmetrical in 4.

*Symptoms.*—Each patient applied primarily for the relief of an unsightly deformity which caused dyspnoea in 5 cases, and pain with dyspnoea in 2. Palpitation without tachycardia was complained of twice, while sleeplessness and huskiness of



voice are mentioned each once. Coated tongue was infrequent.

Hemanalyses appear in 3 cases and anemia is mentioned without an analysis once. Of the 3, the erythrocytes were reduced to  $4\frac{1}{2}$ ,  $3\frac{3}{4}$ , and  $4\frac{1}{4}$  millions respectively, with correspondingly low Hb per cent. In 2 the leucocytes were normal, and in 1 increased.

Of changes in the urine, calcium oxalate is noted twice before operation, uric acid once, trace of albumin alone once, and trace of albumin with casts once. Only once was albumin noted post operative with ether as the anesthetic.

In the operative cases as a rule there was little to note in regard to the pulse, although cardiac murmurs were noted five times and displacement of the apex once. After operation, however, there were marked irregularities.

Case 1 ran an average temperature of 100.5 for 6 days.

2. Died of shock immediately after operation.

3. Ran an average temperature of 100.5 for 5 days and an irregular pulse, average 90, with free serous discharge.

4. Had a high pulse rate on the day following operation. Also delirium for 4 days.

5. Pulse rose to 100 twelve hours after operation. On the ninth day fell to 50. The temperature fell to 97 twelve hours post op.

6. Irregular pulse with moderate sero-sanguinous discharge.

7. Pulse averaged 135 for 3 days; never under 95. Temperature 102 for 3 days. Thereafter averaged high. On the 5th day symptoms of tetany with dizziness, nervousness, etc.

8. Pulse irregular and rapid under ether. Both pulse and temperature irregular and high after operation.

9. Temperature fell to 97.4 post op.

10. Pulse ran up to 130 during the operation. Afterward both pulse and temperature were irregularly high.

11, 12 and 13. Ran irregular and high pulses after operation.

A reference to the literature brings up the question of thyroid fever complicating partial ablation of the gland. In this condition as described there is high fever with disproportionately low pulse and respiration. Ordinarily the greater the amount of discharge the higher the fever, retention being present, as I understand it. Case 4 was the only one in whom retention was noted, and with him the temperature was not pronounced, but he developed delirium. The marked remissions of temperature are interesting, espe-

cially as the occurrence is noted repeatedly in the cases of exophthalmic goitre. They do not seem to have been followed by the reactionary high temperature associated with chill, but in some instances a moderate increase in the pulse rate is noted. The occurrence is possibly due to nerve injury, and yet taken in connection with the other irregular symptoms like tetany, delirium, sudden and marked irregularities in the pulse, all noted frequently in the exophthalmic cases, seems to me to be directly due to interference with the glandular functions.

Medication in all this series of cases but one was directed to the upbuilding of the patient's general health rather than specifically against the disease, though it is reasonable to suppose that many of the cases had received such special treatment before their hospital residence.

One death—immediately after operation from hemorrhage and shock—makes the death rate about 8 per cent.

Of the direct and remote results, one died, as just stated; one developed cachexia strumipriva, which later yielded to treatment; the rest recovered. Of postoperative complications, nausea and vomiting was produced in 2, difficulty in swallowing in 1, and hoarseness in 2.

The three cases treated medically are chiefly interesting from the failure of thyroid extract to benefit the tumor in one, while in the other two complete cures resulted. The failure occurred in a woman of 30, in whom there had been a steady increase in the tumor for 3 years, and although the mass was soft and elastic and seemed favorable, no improvement resulted. She eventually submitted to operation at a New York hospital and has experienced complete relief. The others, also women, 18 and 24 respectively, had been afflicted for much shorter periods—6 and 14 months—and both responded promptly to thyroid treatment, with occasional courses of KI, the treatment being continued for 3 months in each case. This bears out the statements of Baumann and others that as high as 60 per cent. of cures may be expected in young subjects treated by the thyroid method.

Of the cases of exophthalmic goitre, we find a list of 12, 2 men and 10 women. The ages range from 14 to 54, though the greater number are between 20 and 30. Four are single, 6 married, 2 widowed. Four show some family history of communicable disease—tuberculosis and heart disease in one; uric acid habit, rheumatism and melancholia in another; rheumatism in a third; and a family history of nervousness in a fourth.

DIAGNOSIS.	SEX	AGE.	CIVIL CONDITION.	LENGTH OF TREATMENT.	FAMILY HISTORY.	PREDISPOSING CONDITIONS AND PREVIOUS HISTORY.	RAPIDITY OF GROWTH.	MENSTRUAL HISTORY.	PATHOLOGIST'S REPORT.	SYMPTOMS.			
										Objective.	Subjective.	Vaso-Motor-Neuroses.	Occular.
GOITRE. Operative. 1	M.	21	S.	20 days.	Neg.	No note.	2 years.		Cystic unilateral goitre, much is normal acinar tissue with colloid; one large cyst with smooth muscle cells in its fibrous walls.	Tumor of right lobe $2\frac{1}{2}$ " in diam.			
GOITRE. 2	F.	42	M.	2 hours.	Neg.	No note.	20 years.		Large vascular.	Large bilateral tumor.	Dyspnœa. Pain.	Sleeplessness.	
GOITRE. 3	F.	25	S.	13 days.	Neg.	No note.	7 years.		Large Cystic. Cw. position.		Dyspnœa. Palpitation.		
GOITRE. 4	M.	33	M.	14 days.	Carcinoma in paternal great uncle.	No note.	Since childhood.		Purely hypertrophic, R. lobe and part 15 cm. x 8 cm. x 8 cm.	Husky voice.	Dyspnœa.		
GOITRE. 5	do.	34	do.	48 days.	do.	do.	do.		Left lobe of same; hard hypertrophic.			Delirium p. o. 4 days.	
GOITRE. 6	M.	32	W.	10 days.		No note.	2 yrs. very rapid last 2 weeks.		Cystic R. lobe to middle of isthmus.		Dyspnœa. Pain.		
GOITRE. 7	M.	47	M.	13 days.			27 yrs. slow, 4 yrs. fast growth.		Mass consists entirely of median lobe. Is hypertrophic, hyperplastic and cystic, weight 300 gm., cm. 10 x 7 x 4.	Inconvenience from size and appearance of tumor.			
GOITRE. 8	F.	19	S.	40 days.	Neg.	No note.	3 yrs. rapid enlargement.		Vascular and hyperplastic.	Rather soft, pulsating vascular tumor, systolic mur heard over entire mass. Neck measures $15\frac{1}{2}$ " at hyoid and $16\frac{1}{2}$ " just below.		On 5th day p. o. there developed dizziness, numbness, "dazzling" before eyes, muscular twitchings of extremities. Lasted 3 days.	No Exothalmos.
GOITRE. 9	F.	37	M.	12 days.	Grandfather had heart disease.	Catarrrhal jaundice. All infantile diseases.	16 yrs. slow growth.	Mens. irreg. Nullipara.	Hypertrophic R. lobe and isthmus more than the left.	Only discomfort from pressure.			
GOITRE. 10	F.	37	M.	30 days.	Neg.	Always delicate. Grippe, rheum. sore th.	Since birth of first ch.		Hypertrophic Bilateral—right larger.	Interferes with breathing. Tongue coated.			
GOITRE. 10	F.	24	S.	20 days.	Neg.		5 yrs. slow growth.		Cystic. 3 x 2 x 5" mostly central with lateral projections.	Only unpleasant appearance.			



OPERATION.	MEDICATION.	BLOOD.	URINE.		RANGE OF			CONDITION OF		RESULT OF TREATMENT.	
			Before.	After.	Pulse.	Temp.	Resp.	Heart.	Lungs.	Immediate.	Remote.
Small stump of left side left in situ. Free serous discharge.	No note.		Calc. Oxalat.	No note.		100.5 av. for 6 days p. o.		Neg.		Cured.	
Removal. Profuse hemorrhage.	Stimulation post op.		1.034 uric acc. calc. ox.		104	99.2.	18	Neg.		Died of shock.	
	No note.		Neg.		Irregular and high-90 av.	100.5 for 5 days p. o.		Neg.		Much nausea for 2 days p.o. Very free serous discharge.	Wound healed by granulation.
Left lobe re-ruined.	No note.		Neg.		Not affected.	101° for 2 days p. o.				Slight serous discharge. Healed per primam.	
Small portion left posteriorly.	None noted before op.				High on day after op.	High on day after op.		Apex beat prominent.	Vesiculo-tym. Note.—Especially behind.	Profuse hemorrhage. Delirium at times severe, for 4 days p.o.	13th day a pocket containing gelatinous material evacuated. Glandular secretion profuse.
Ablation of right lobe.	No note.		Neg.		Pulse rose to 100 12 hrs. p.o. 7th day fell to 50.	Fell to 97° 12 hrs. p.o.		Neg.		Primary union.	
Ablation of median lobe.			Neg.		Pulse irregular during convalescence.			Systolic mur. at apex and in 2d right interspace.	Neg.	Moderate sero-sanguinous discharge. Some mechanical disturbance of deglutition.	Healed almost per primam.
Ablation of a but small portion of gland. Moderate sero-pululent discharge.	Put on KI. with injections of carbolic acid and of iodoform into mass. Slight rise of temp. followed injections, and pain; no benefit, mass rapidly enlarging. P.o. symptoms subsided under Thyroid ext. gr. i q. 4 h. (P.D. & Co.).	R.B.C. 4,240,000 W.B.C. 15,300 Hb. 55 p.c.	Neg.		P. o. pulse av. 135 for 3 days; never under 95.	102 3 days. Therefor 3 after av. high		Systolic and diastolic mur. entire period.	Neg.	See "Symptoms." She returned to O. P. D. after 40th day with <i>tetany</i> , general tremors, sleeplessness, flushings, palpitation, dyspnoea, and extreme nervousness. All forms of thyroid therapy were tried + KI, but without success. A report received 6 months ago shows her to have regained her general health and to be in good shape.	
Greater part of left lobe left in situ.			F. tr. alb.		Irregular and rapid under ether. Both irregular and high p. o.			Faint systolic mur. at apex. Pronounced systolic mur. over pulmonary valves.		Rather free sero-sanguinous discharge. Uneventful recovery.	
Small stump left.	General tonics p. i. o. chlor. 6 3.	R.B.C. 3,848,000 W.B.C. 5,000 Hb. 65 p.c.	F. tr. alb. 1,007.		Regular—good quality.	Fell to 97.4 p.o.		Systolic mur. 3d interspace to left of sternum.		Good deal p.o. vomiting.	
One-fifth of left lobe left. Lasted 40 m. Cor.			V.f.tr. alb. hy and gran. casts.		Ran up to 130 during op. Irregularly high. 100	100°		Systolic mur. at apex and in 2d and 3d spaces.		Voice coarse and husky. Very free sero sanguinous discharge.	Much restlessness and loss of sleep. Laryngeal irritability lasted number of days.

DIAGNOSIS.	SEX.	AGE.	CIVIL CONDITION.	LENGTH OF TREATMENT.	FAMILY HISTORY.	PREDISPOSING CONDITIONS AND PREVIOUS HISTORY.	RAPIDITY OF GROWTH.	MENSTRUAL HISTORY.	PATHOLOGIST'S REPORT.	SYMPTOMS.			
										Objective.	Subjective.	Vaso-Motor Neuroses.	Ocular.
GOITRE. 11	F.	43	M.	19 days.	Neg.		10 years.		Hypertrophic Right side for the most part.	Only discomfort from pressure.			
GOITRE. 12	F.	30	S.	18 days.	Neg.		4 years.		Hypertrophic.	Pressure symptoms.			
GOITRE. 13	F.	26	M.	20 days.	Neg.		3 years.		Cystic.	Pressure symptoms.			
GOITRE. Non-operative.	F.	18	S.	3 mos.	Neg.	Diseases of childhood.	Rapid about 6 mos.		Clinically—hyperplasia.	Tumor front of neck. Circumference 35 cm.	Some palpitation. Little dyspnoea.		
GOITRE.	F.	30	S.	7 mos.	Neg.		Slow 3 years.		Clinical hypertrophy.	Large, soft, fairly symmetrical tumor, mostly on left side.			
GOITRE.	F.	24	M.	3 mos.	Neg.		Fairly rapid, about 1½ yrs. came post partum.		Clin. hypertrophy.	Elastic symmetrical tumor. Circumference 33 cm.	Cosmetic effect only.		
EXOPHTHALMIC GOITRE. 1	F.	29	W.	6 mos.	Mother tuberculosis. Father heart disease. One sister heart disease.	Frequent attacks of pleurisy, typhoid, pneumonia.	Rapid enlargement.		Moderate sym. thyroid enlargement. Impulse from deep vessels—No expansion.	During last 6 mos. there have developed: Hoarseness. Tenderness under cavities. Persistent cough. Sputum often bloody. One night sweat. Occasional edema of feet.	Dyspnoea. Lancinating pain in chest, scapular and clavicular regions. Gurgling when she swallows. Loss of weight (160 to 112).	Occasional febrile attacks, becoming scanty. Hyperaesthesia over chest.	Marked Exophthalmos.
EXOPHTHALMIC GOITRE. 2	M.	54	M.	2 yrs. or more.	Neg.	Spinal sclerosis			Hypertrophic?	Goitre with nervous symptoms.			
EXOPHTHALMIC GOITRE. 3	F.	34	M.	29 days	Neg.	Severe fright 7 yrs. ago.	6 yrs. gradual increase of all symptoms.		No thyroid enlargement.	Coldness of lower extremities. No anaesthesia. All these symptoms come in spasms lasting ½ hour or so, and becoming more frequent of late. Well nourished.	Pain and feeling of constriction across chest and back 7 years. Pressure on trachea when exerting or excited, 6 years. Sudden onset. Transitory erythema on chest when cold. Precordial pain when stooping.	Palpitation. Throbbing in blood vessels, especially neck and face. Loss of muscular power.	Exophthalmos.
EXOPHTHALMIC GOITRE. 4	F.	20	S.	16 days	Neg.	Always poor health; catches cold easily hemoptysis when cold.		Menstr. painful and irregular.	No thyroid enlargement.	Improved rapidly under treatment 8 months ago. Then bop. for dermoid cyst in sacral region, and has grown worse again. No goitre. Tongue coated. Pulsating aorta.]	Palpitation. Very nervous. Restless at night. Excessive perspiration.	Stellwag sign present. Gräfe's absent.	Exophthalmos. Horizontal and vertiginous nystagmus. Stellwag and Gräfe signs.
EXOPHTHALMIC GOITRE. 5	F.	22	S.	53 days.	Neg.	Tendency to diarrhoea.	3 yrs. duration.		Thyroid enlarged to ½ size of hen's egg.	Tumor of thyroid. Tongue trifle coated.	Dyspnoea on exertion. Palpitation.	Nervous and excitable. Intention tremor. Free perspiration.	Slight exophthalmos.



OPERATION.	MEDICATION.	BLOOD.	URINE.		RANGE OF			CONDITION OF		RESULT OF TREATMENT.	
			Before.	After.	Pulse.	Temp.	Resp.	Heart.	Lungs.	Immediate.	Remote.
Small piece of sthmus left in place. Smp cauterized.	Symptomatic treatment for p.o. restlessness and vomiting.				Irregular and high p.o.					Healed per primam. No discharge.	Voice hoarse whisper for considerable period.
Small port left.					No special note.					Healed kindly.	
Small port left.					do.	do.				Healed with only little serous discharge.	
None.	P. D. & Co. Thyroids gr. 5 t.i.d. KI gr. v g. 4 h. (alternating) Blaud's pill.	R.B.C. 4,200,000 W.B.C. 6,000 Hb. 60 p.c.	Neg.		Av. 95.			Hæmic mur.	Neg.	In 3 months neck reduced 5 cm. Blood count came up to normal.	No evidence of constitutional disturbance from medication.
Sp. after leaving my care at N.Y. Hosp.	Treatment as above.	Anemic. No count.	Neg.		Av. 70				Neg.	No improvement. Gland increased in size.	Eventually removed surgically. No disturbance. Cured.
None.	P. D. & Co. Thyroids gr. 5 t.i.d.		Neg.		do				Neg.	In 2 months neck reduced 2 cm.	Tumor hardly noticeable. No disturbance.
	Galvanism brought pulse to 160 + syncope + hysteria. Tried without effect stupefies, Convalaria Majalis, Fe. Aconite Belladonna. Sulfonal relieved insomnia. Ergot and morphia for hemoptysis. Veratrum and conicum had bad effect on the pulse.		1,020 tr. alb. r. b. e. gran. det us.		Visible pulsation in carotids.			Heart moderately enlarged, rapid. Systolic mur. over base, transmitted to both carotids and behind.	Some evidence chronic bronchitis.	She was later treated in the surgical service, after 48 days' medical treatment. Went home and died during a "hysterical" attack such as she had frequently exhibited while in the hospital.	
	Treated with KI. systematically and galvanism locally.									No effect noticed.	
	Fluid and farinaceous diet. Strych. Sulph. gr. 10 q. 3 h. Nitroglycerine gr. 100 q. 2 h. Sod. Sal. gr. x. q. 4 h. Tr. belladonna seemed most helpful. Fluid ext. digitalis. Ice to precordium 2 hrs. out of every 4. Later KI.	Anemia marked.	Tr. alb. Few granular casts.		Full and soft. Bruit de Diabole over thyroid. 80 Irregular, average 80.	95.8. Ranged somewhat subnormal.	22.	Dilated; slight blowing systolic murmur at apex transmitted into axilla. Presystolic with thrill at apex. Second sound is duplicated.		Tendency to diarrhoea, possibly from medication. Improved under treatment.	
Removal of vermiform cyst from sacral region.	Rest in bed. KI. Ext. dig. fld. Later F. Q. S.	Anemia.	1,005 Tr. alb.; little pus.		140. high and irregular.	86.4. Later average, 99.	32. high and irregular.		Neg.	Some headache noted. She improved somewhat under treatment. During some months there was no evident benefit from thyroid, suprarenal extracts, digitalis or ergot.	
	Ext. dig. fld. Massage. Sup. renal gr. vi., followed after 1 hour by strontium bromide gr. x. No meat or fruits. Later calc. glycerophos. substituted.	Not noted.	Not noted.		Irregular, 90 to 140.	Regular and low.		Hemic mur.		Steady improvement.	

DIAGNOSIS.	SEX.	AGE.	CIVIL CONDITION.	LENGTH OF TREATMENT.	FAMILY HISTORY.	PREDISPOSING CONDITIONS AND PREVIOUS HISTORY.	RAPIDITY OF GROWTH.	MENSTRUAL HISTORY.	PATHOLOGIST'S REPORT.	SYMPTOMS.			
										Objective.	Subjective.	Vaso-Motor-Neuroses.	Ocular.
EXOPHTHALMIC GOITRE. 6	F.	27	W.	20 days.	Neg.	All infantile diseases. Second attack scarlet fever at 20 yrs. Nervousness since that date.		II—Para. Menst. has been growing scanty.	Goitre 3 years present. Increased in spite of medication. Size of hen's egg, soft and elastic.	Tongue slightly coated. Tremulous. Superficial pulsation in neck.	Palpitation coming on frequently at night.	Hysterical crying spells for 7 years. Tremor of hands. Dyspnoea and palpitation on slight exertion.	Exophthalmos.
EXOPHTHALMIC GOITRE. 7	M.	24	S.	4½ days.	Father uric acid diathesis. Mother rheumatism and melanchoia.	Has been a hypochondriac and has masturbated to excess for yrs.	15 mos.		Moderate, elastic tumor.	Tumultuous heart action. Swelling of legs. Enlarged thyroid.	Pain over heart 6 years. Dryness of throat. Dyspnoea.	Growing nervousness.	
EXOPHTHALMIC GOITRE. 8	F.	32	M.	7 days.	Father rheumatic.	Scarlet fever. Stomach trouble for some 8 years.	6 yrs. rapid growth but improved under treatment, only to return again worse.	Menstrual irregular of late.	Pulsating tumor of thyroid.	Tumor in neck. Visible tremors of facial and skeletal muscles—especially eyelids. Coated tongue.	Loss of weight and strength. Anorexia, pruritus, nausea (frequent), cough, dyspnoea, "bruit de diable."	Nervousness, palpitation, sleep poor.	Exophthalmos not constant.
EXOPHTHALMIC GOITRE. 9	F.	34	M.	30 days.	Entire family nervous.	Repeated child-birth.	21 mos. ago during pregnancy came very irregular and scant. 11 para. 3 mos. later.	Menstrual 6 mos. ago became very irregular and scant. 11 para.	Both sides of neck involved about equally. Tumor vascular, size of orange—myxomatous degeneration in spots.	Muscular tremors. Tumor in neck, painful spots on legs becoming echymoses.	Palpitation and dyspnoea, precordial pain, free perspiration, paræsthesias.	Sleep interrupted, generally nervous.	Photophobia, lachrimation, impaired vision. Stellwag sign. Exophthalmos.
EXOPHTHALMIC GOITRE. 10	F.	27	M.	3 mos.	Neg.	Child-birth.	Goitre present about 2 yrs.		Thyroid enlargement 13¼"	Tachycardia, cold extremities, reflexes exaggerated.	Palpitation, anorexia, dizziness.	Extreme nervousness and fear of being alone.	Slight exophthalmos. Stellwag's signs.
EXOPHTHALMIC GOITRE. 11	F.	14	S.	51 days.	Neg.	Dropsy at 5 yrs. old. Tonsillitis frequent. Weak and nervous since tonsilotomy 1 yr. ago.	4 mos.	Menstrual just established.		Pulsating tumor, general tremors, systolic thrill and bruit over thyroid.	Dyspnoea, palpitation.	Very nervous.	Exophthalmos. Græfe and Stellwag's signs.
EXOPHTHALMIC GOITRE. 12	F.	40	M.	31 days.	Rheumatism.	Rheumatism. Pleurisy, hernia 20 yrs. general pustular eruption after vaccination	Indefinite history of at least 3 yrs.		Trifling enlargement.	Small tumor, swollen tongue, swelling of feet, diminished urine, skin much pigmented.	Dyspnoea. Palpitation. lassitude, gastro-enteric disturbances.	Excited and nervous without occasion, does not perspire.	



OPERATION.	MEDICATION.	BLOOD.	URINE.		RANGE OF			CONDITION OF		RESULT OF TREATMENT.	
			Before.	After.	Pulse.	Temp.	Resp.	Heart.	Lungs.	Immediate.	Remote.
Portion of left lobe left, but all the afferent vessels ligated. Chlor. 3 vii. a 35 minute.	All approved medication tried without results. KI. for 6 days ante op.	R. B. C. 5,100,000. W. B. C. 111,000. H b. 85 p. c.	Alkaline.	F. tr. alb.; many hyaline and some granular casts.	104, regular, fair force. During anæsth pulse dropped from 105 to 44. Ran up to 110 under strychn.	98.4.	26.	Apex displaced outward.		Good deal nausea and vomiting. Laryngeal irritability. Moderate serious discharge.	Nervousness has subsided rapidly after operation.
	Sedatives, analgesics p. r. n. Digitalis and Belladonna. KI. seemed to be responsible for a marked acne.		1,004, heavy; tr. alb. hyal. and gran. casts. Improved under treatment, diet and regimen.	Some times calc-oxalate.	80, irregular and poor quality.	97.8.	28.	Rapid and tumultuous.		Improved.	
	Tr. Belladonna. Ext. Digitalis. Sod. Brom.	R. B. C. 4,800,000. W. B. C. 16,800. H b. 80 p. c.			148 to 156.	99.	36.	Force much exaggerated. Apex displaced outward.	Breath sounds roughened in spots; few crackling râles, especially right apex behind.	Died after being taken home — 7th day.	
Local anæsthesia by Schleicht's mixture and cocaine. Small portion left lobe left in situ.	No special medication. Tonic and general alterative treatment.	R. B. C. 3,496,000. W. B. C. 12,000. H b. 55 p. c.	Albumin hyaline casts.	Uric acid, and alb. and casts, p. o.	Rapid 110+. p. o., rapid and small for a time, otherwise negative.			Mitral systolic murmur. Apex beat displaced to left.		Good deal shock and depression p. o.—Condition critical, but rallied under infusions and stimulants.	Nervousness and exophthalmos diminished p. o.
	Thyroid tablets, P. D. & Co. gr. 5. q. 4 h. Strychn. Sulph., stop nursing. Milk diet, Peptomangan.	Anemic.	No alb.		Rapid, small, running, 112. After treatment, 88.	98.6°.	30.	Faint murmurish quality second sound.	Neg.	Improved rapidly. Tumor measured 13½ inches after 70 days' treatment.	
	Fld. diet, galvanism, tr. iodine. Later Ung. Hg. Biniodid, Bland's pill, Arsenic, Calc, Glycophos., X-ray.	Anemic.	Tr. alb.; few leucocytes.		124 ran irregularly high.	99.6 Irregularly subnormal after preliminary rise.	30.	Soft systolic murmur at apex, pulmonary and aortic areas.	Neg.	Improved. Three applications of X-ray. Tumor mass varied from time to time, but was larger when discharged. Tendency to diarrhoea.	
	R. & S. Comp. Thyroid, A. B. S.		Some indican.		Small, running.			No organic lesion.		At one time her frontal hair turned white, but is now black. Some improvement; still under treatment.	

DIAGNOSIS.	SEX.	AGE.	CIVIL CONDITION.	LENGTH OF TREATMENT.	FAMILY HISTORY.	PREDISPOSING CONDITIONS AND PREVIOUS HISTORY.	RAPIDITY OF GROWTH.	MENSTRUAL HISTORY.	PATHOLOGIST'S REPORT.	SYMPTOMS.			
										Objective.	Subjective.	Vaso-Motor-Neuroses.	Occula
Obesity.	F.	40	M.	3 mos.				Meno-pause.		Tachycardia, nervous symptoms, obesity, general anasarca pseudocyesis.			
Obesity.	M.	35	M.	1 year desultory treatment for neurasthenia.						Simple obesity.			
OBESITY.	M.	36	M.	One or two visits only.						Simple obesity.			

Previous illness was present in every case. Scarlet fever is specified three times, rheumatism twice, pulmonary disease twice, excessive masturbation once, spinal sclerosis once, severe fright once, repeated childbirth twice, chronic diarrhoea once. Menstrual disturbances with tendency to diminish flow are noted in 6 of the 12.

Of objective symptoms a goitre was present in 10; pulsation or a bruit in 10; tachycardia in 10, 4 of whom were subject to nocturnal seizures of palpitation; evident dyspnoea in 10; muscular tremors in 7; exophthalmos in 9; Stellwag's sign in 5; von Graef's in 2; nystagmus in 1; lachrymation and photophobia in 1; localized or general edema in 3. A coated tongue is noted in 7 of the cases, dryness of the throat in 1, hoarseness in 2. Pigmentation of the skin is noted once and erythema once. Excessive perspiration occurred in 5 cases, the opposite in 1.

Nervous symptoms, including hysterical outbreaks, restlessness, sleeplessness, terrors, paraesthesias, pruritus, irritability, unreasonable excitement, exaggerated reflexes and so on are noted in every instance.

Urinary symptoms are recorded in 8 of the 12. Of these, a trace of albumin was noted 6 times, casts 3 times, abnormal changes in density twice, presence of blood elements 3 times, and indican once.

Hemanalyses accompany 3 cases. They show respectively 5,300,000 red, 11,000 white and 85 per cent. Hb.; 4,800,000 red, 16,800 white, and 80 per cent. Hb.; and 3,496,000 red, 12,000 white cells and 55 per cent. Hb., a condition suggestive of insufficient oxidization in the blood stream. Four other cases are recorded as anaemic.

The average pulse rate is high. The lowest recorded is 80, the highest 156. For the rest, 110

is a fair average. Temperature, on the other hand, ranges low—95.8, 96.4, 98.4, 97.8, while 98.4 represents the average for the others. Respirations as recorded are above the average—29 for 7 out of 12.

Of cardiac changes, murmurs of various sorts are recorded in 6, enlargement as indicated by displaced heart twice, in one the action is recorded as rapid and tumultuous, and in 3 no changes were detected.

Treatment was too varied to be summarized. Two patients were subjected to partial ablation with beneficial results. The others uniformly received rest in bed in the hospital cases, limited diet and cardiac stimulants, of which digitalis and belladonna seen to have been most favorably regarded, with KI and thyroid as second choice. The results in each case are here reported separately.

CASE No. 1.—A widow of 29 with a tuberculous family history, with the disease developing rapidly to a very marked degree and under treatment in 1889, was affected unfavorably by galvanism, the pulse running up to 160 and a hysterical attack complicated by syncope and lasting several hours resulting. A large variety of cardiac sedatives and nerve sedatives failed to afford relief. She had cardiac murmurs and nephritis. About two months later she died.

CASE No. 2.—Complicated a case of spinal sclerosis. Galvanism and KI failed to produce any appreciable effects.

CASE No. 3.—A woman of 34, with a slow development of 6 years, a large number of painful and neurotic symptoms, nephritis, a dilated heart and a tendency to diarrhoea, but not goitre. Improved under belladonna, stimulants, diet and regimen.



OPERATION.	MEDICATION.	BLOOD.	URINE.		RANGE OF			CONDITION OF		RESULT OF TREATMENT.	
			Before.	After.	Pulse.	Temp.	Resp.	Heart.	Lungs.	Immediate.	Remote.
	Ext. digitalis fld. Thyroid extract, gr. v.									Steady loss of weight and general improvement. Apt to have dyspnoea and palpitation without the digitalis.	
	A proprietary preparation con- taining thyroid, self administered.									He increased the quantity because dissatisfied with the progress, and after a few days he developed melancholic symptoms with tachycardia, weakness, tremors and dyspnoea. Cessation of the drug caused improvement; but he is, after two years, neurasthenic; has diminished sexual powers, and is fatter than ever.	
	do.									do.	

CASE No. 4.—A neurotic girl of 20, also without marked thyroid enlargement, but with a long train of well-developed symptoms, a trace of albumin and a very high irregular pulse improved slightly under rest, KI, digitalis and later F. Q. S. A long previous course of thyroid and suprarenal extracts and ergot had produced no result.

CASE No. 5.—A woman of 22, with a well-developed case improved steadily under diet, massage, rest, suprarenal extract, and calcium glycerophosphate.

CASE No. 6.—A woman of 27, with a rapidly progressive form of the disease that had proved intractable to medication, showed marked and continuous improvement after removal of the greater part of the gland.

CASE No. 7.—A man of 24 with a poor family history, a long course of self-abuse and a fairly typical form of the disease, showed some improvement under belladonna, digitalis and KI.

CASE No. 8.—Woman with a history of 6 years of the disease, with one period of marked improvement, but rapidly growing worse of late after a week's treatment with belladonna, digitalis and soda bromide, died 10 days after removal from the hospital.

CASE No. 9.—Woman of 34, with a rapid development of the disease since pregnancy; 21 months before was subjected to almost complete ablation. The symptoms rapidly ameliorated.

CASE No. 10.—Woman of 27, with case developing rapidly after childbirth 2 years before, and especially marked nervous symptoms; improved rapidly under thyroid extract, strychnine and iron.

CASE No. 11.—Girl of 14, with a well-marked case of 4 months' duration; received X-ray appli-

cations, diet, galvanism, mercury, iron, arsenic and calcium glycerophosphate. She showed satisfactory improvement.

CASE No. 12.—Woman of 40, with a symptom complex suggesting Addison's disease in addition to exophthalmic goitre, including pronounced nervous symptoms, pigmentation of the skin, and gastro-enteric disturbances shows some slight improvement under thyroid extract and treatment directed to her stomach and bowels. Her treatment has not advanced far enough to be conclusive.

To summarize the results of treatment then, 2 died, 1 was not improved and 9 were benefited in varying degrees.

The three remaining cases that I have to report deal with thyroid extract as a therapeutic agent, and while not properly classed under the title of this paper, nevertheless have a bearing on the subject as a whole.

Two of them, practically identical, are illustrative of the evils of self-drugging. Both patients were men of about 35 years of age, friends, and both troubled with rapidly increasing adipose. They undertook to reduce this by the use of a proprietary preparation containing thyroid extract. Not satisfied with the immediate results they increased the dose with a corresponding reduction of weight, but with the sudden and violent onset of extreme nervousness, muscular weakness, tachycardia and dyspnoea. One recovered a fair degree of health soon after stopping the drug, the other has yet remaining an irritable heart, a considerable degree of neurasthenia and diminished sexual powers, conditions that do not improve under the desultory treatment that he tries to get on with.

The third case is that of a woman at the menopause whose sudden increase of abdominal fat, cessation of menses and subjective symptoms persuaded her that she was pregnant. She actually presented an abdominal tumor—probably omental fat—and had labor pains at the end of nine months. During the course of this pseudocyesis she developed dyspnoea and tachycardia, for which strophanthus and passiflora incarnata were exhibited, as digitalis promptly nauseated her. When finally persuaded of her true condition she consented to appropriate gymnastic treatment, supplemented with thyroid extract. Steady use has reduced her fat to a reasonable weight and her heart has improved under this treatment alone.

A glance at three of the cases just mentioned shows, as already stated, oligocythemia in two, a normal red cell count in one, leucocytosis and reduced Hb. per cent. in all three. We may add to these two of the operative cases with blood counts respectively of 4240000, 15300 and 55 per cent.; and 3848000, 15000 and 65 per cent.; and one non-operative case with 4200000, 6000 and 60 per cent. Ordinary anemias do not show so general a leucocytosis, and although the differential leucocyte counts are lacking we may argue some active hemolytic process at the expense of the red cells, with a corresponding reparative one on the part of the leucocytes, even if an inflammatory process is not suggested.

As the characteristic appearance of anemia is recorded in five other cases we may justly reason that it is not purely accidental or intercurrent, but a part of the general intoxication, and so suggestive of some far-reaching systemic disease in which the thyroid involvement is a part.

That a close sympathy exists between the thyroid and pituitary, for instance, may be argued from the figures of Hinsdale and others, who found that in a large number of cases of disease of the pituitary the thyroid was also involved.

H. C. Wood has reported three cases of exophthalmic goitre that were benefited by splenic extract, thus arguing an association with the spleen, and by inference a systemic and not a local disease.

Moebius reports that he has used serum from animals deprived of their thyroids in exophthalmic goitre with marked improvement in three cases. He suggests that meat from such animals might be sufficient. He expected to find albuminuria, but it did not develop.

In the series of cases just reported two cases

of exophthalmic and two of simple goitre were cured by the use of thyroid extract.

A number of authorities nevertheless pronounce against the use of the gland as illogical.

Von Mikulicz (quoted in the American Year Book of Medicine), from a study of 117 uncomplicated cases of simple goitre believes that exophthalmic goitre cannot be considered as dependent on hypersecretion alone, though it may play a part. He regards the hypertrophy as due to the causes making for disturbances in the other organs.

W. Edmunds regards the disturbances as essentially chemical. He found after thyroidectomy changes in the Nissl bodies comparable to the results of acute poisoning. The acute nervous symptoms can be made to appear (in dogs) by excision of the parathyroids alone, but not by excision of the thyroid alone. He reasons that iodine, more abundant in the parathyroids, is thus an active preventive agent.

Mannini, from experiments, believes the disease to be due to neuroses of the cervical sympathetics. Biagi takes an exactly opposite view.

From the cases under consideration and from the greatly divergent experiences just quoted, it appears that the congeries of symptoms called exophthalmic goitre is not uniform in occurrence, not in its behavior toward thyroid therapy. In some cases there is fever, an indication of increased oxidization. In others a subnormal temperature indicates the opposite. Some show a distinct involvement of the thyroid as indicated by a pulsating tumor with a bruit du diable. Others lack only this symptom. Some respond readily to the exhibition of thyroid extract. Some are refractory to all treatment.

It is not unreasonable to suppose, therefore, with Mikulicz, without subscribing to the full extent of Sajous' contention, that the symptoms are primarily due to adrenal disease, that we have to deal with a trouble having its rise, not in the thyroid, but in a disturbance of the proper relation of all the secretions in which sometimes one and sometimes another is present in excessive or insufficient amount.

The degree of success attending thyroid therapy in some of the cases cited makes it seem reasonable that a larger proportion might be benefited by a judicious use of the extract, always bearing in mind the untoward cardiac symptoms which indicate the danger point, and reserving the more radical measures until failure of the milder therapeutic means is assured.

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## SURGERY OF THE KIDNEY.

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The kidney in its relation to surgery is unique. Of all the organs existing in pairs, none bear such intimate reflex and anatomical relations to each other as the kidneys. It is true that disease of one eye may be followed by sympathetic changes in the other, but here removal of the diseased organ rather tends to improve the condition of the other. Further, both eyes may be removed without danger to life; not so with the kidney.

In no other organs do malformations and disease so frequently affect both sides. In dealing with the kidney, therefore, it is always necessary for the surgeon to satisfy himself of the condition of both organs, and he must have one comparatively healthy before he is justified in dealing with a diseased one.

Surgery of the kidney is such a large subject that in the time given us we can but refer to the various conditions presented. The kidney may be the seat of acute or chronic suppuration, or tubercular disease, involving the organ proper or its enclosing tissues.

It may be the subject of either malpositions or malformations, of injuries or tumors. In considering the surgical diseases of the kidney, diseases of the ureter must always be included, and here we have stricture, chronic inflammation and blocking by calculi.

Abnormalities may be either of position, number, or form.

Misplacements of the kidney are referred to under the following headings:

Misplaced kidney when the organ occupies an abnormal position; a movable kidney when the organ occupies an abnormal position which is not permanent; and a floating kidney when the organ has a peritoneal investment and moves freely about in the abdominal cavity.

These malpositions of the kidney are of extreme importance in the differential diagnosis of abdominal tumors. The supra-renal bodies seldom follow the kidney in displacement. As malpositions are frequently of malformed organs the diagnosis is rendered more difficult as the shape of the organ cannot be recognized. Misplacement of the kidney seldom calls for treatment, but occasionally the organ is so placed as to be sub-

ject to pressure, and in these cases becomes the seat of pain. Nephrectomy is the only operative procedure likely to cure these cases.

Malformations of the kidney are of interest because of the dangers they add to any operative interference. The many varieties of form of the kidney, and the possibility of the two organs being fused into one are so well known to you all that we need not enumerate them.

The possibility of only one kidney existing must ever be kept in mind when contemplating surgical procedures on the kidney.

Morris gives the frequency of either congenital absence or atrophy of one kidney as one in every 2,650 cases, and draws the following conclusions: "(1) The probability of a person having only one kidney owing to congenital absence or non-development of the other, is exceedingly small. (2) That there is a much larger risk of meeting a horseshoe-shaped or otherwise fused renal mass, and a very much greater risk still of finding one of the kidneys wasted or atrophied by disease. (3) That the fused kidneys are usually situated in the median line of the body. (4) That the presence of a renal mass in any abnormal position should be sufficiently suggestive of there being but a single kidney to prevent nephrectomy being performed without first ascertaining whether a second kidney is present or not." The right kidney is more frequently absent than the left.

*Movable kidney* directly concerns the surgeon, for in this we have a condition which, although not a menace to life, is a burden which sometimes makes life almost unbearable. A certain degree of movement of the kidney during respiration is normal to both men and women, but it is greater in the female than the male. The anatomical reason for this, according to the observations of Deletzine and Valkoff, is that in the female the renal fossa is not so deep and its width at the inferior part is much greater than in the male. The right kidney is about 12 times as frequently affected as the left. Movable kidney may occur at any period of life from infancy to old age, but is most common between the ages of 30 and 40 years.

While we have not time to enter into a full consideration of the causes of movable kidney we may mention the following as more or less generally accepted: (1) Rapid general emaciation and absorption of the fatty elements of the adipose capsule; (2) frequent pregnancies with too early resumption of the erect posture; (3) the intermittent pressure of corset lacing; (4) the

presence of tumor of the kidney; (5) dilatation of the stomach; (6) as one of the organs in ptosis of the abdominal viscera, and (7) as the result of trauma.

*Symptoms*—These naturally are subjective and physical. Of the former pain is the most constant but varies greatly in degree. The pain is due to the pressure of the kidney on other parts, the dragging exerted through the peritoneal folds on the duodenum and to congestion of the kidney or angulation of the ureter, producing temporary hydronephrosis. Gastro-intestinal disturbances may be reflex or occur as the result of the dragging of the kidney on the intestine. As a result we find vomiting and most frequently obstinate constipation with the production of gaseous distention. The so-called renal crises consist of violent attacks of pain, attended by nausea and vomiting, abdominal distention, tenderness and sometimes fever. These attacks are generally attributed to twisting of the pedicle, causing congestion of the kidney and blocking of the ureter. Edebohls believes that the pressure of the misplaced kidney frequently leads to chronic appendicitis with its accompanying symptoms.

Pressure of the kidney on the iliac vessels frequently leads to oedema of one leg or even phlebitis involving the iliac and femoral veins of one side. Such a case we are treating at the present time. Unless there is coexisting disease of the kidney the urine will show no changes. Polyuria is not an infrequent symptom.

Morris describes, under the term "Renal Incarceration," the following acute symptoms: Sudden and acute abdominal pain, hardening of the abdominal wall—uniformly or locally, especially on the affected side—faintness, giddiness, and other symptoms of collapse or even death from shock. During these attacks the kidney can often be felt enlarged from congestion and renal retention of urine and is extremely tender. The urine becomes scanty and may contain albumen and casts, or even blood, but again becomes normal when the attack passes off.

These attacks may be followed by permanent hydronephrosis.

Even in cases where the pain is not severe the constant irritation and dragging soon upset the nervous system and the patient becomes neurotic, even hysterical; the digestive disturbances affect the general system and there is loss of flesh and strength, and in many, if no relief is afforded, chronic invalidism results.

The physical signs consist in the presence in

the abdomen of a movable tumor having the general outline of the kidney. The degree of movement and the position of the mass may vary greatly. It must be remembered that a movable kidney is not always displaced, that is, we may examine as carefully and as thoroughly as possible and fail to find any evidence of a movable kidney and yet at a subsequent examination have no difficulty whatever in discovering the lesion. It is never safe on a single examination to deny the presence of a movable kidney. In thin patients and those with relaxed abdominal walls the diagnosis is usually simple, while in stout persons and in those who persistently contract the abdominal muscles it may be impossible to satisfy oneself of any misplacement of the organ. Even so experienced a practitioner as Henry Morris acknowledges his failure to discover movable kidney in many cases before exploration.

In making the examination the patient should be placed on the back on a firm couch or table with a pillow under the shoulders. The thighs slightly flexed and supported. The patient should be brought near the edge of the table and directed to breathe deeply and regularly to prevent muscular contraction. One hand is placed in the loin and presses up between the last rib and brim of the pelvis while the other hand manipulates the abdomen. The kidney may be felt to move up and down with the respiration; it may come down so that it may just be felt or the entire organ may come down and be grasped by the hand. Sometimes the kidney may be grasped by the hand and suddenly it will shoot up under the ribs and stay there. The patient may be made to sit up and the same manipulations tried.

By manipulation we should try to make out whether the kidney rotates or can be moved either outward or inward as well as upward and downward.

Diagnosis must be carefully made as between the condition under discussion and various other abdominal lesions giving many of the same symptoms.

One of the most common errors is to mistake a distended gall bladder for movable kidney, and in fact these two conditions frequently occur in the same person. Both these conditions give a movable abdominal tumor, but that of the gall bladder is always present while a movable kidney is not always palpable. Jaundice may be present in gall bladder disease, never with the kidney condition alone; both may vary in size from time to time. If diminution in size is accompanied by



increase in quantity of urine passed the kidney would appear to be at fault.

The distended gall bladder feels much harder than the kidney and it usually has a distinct rounded lower border being thicker than even an enlarged kidney. The movements of the gall bladder always take place in the arc of a circle having the centre at a point corresponding to the lower border of the liver. This tumor can frequently be displaced upward, but never downward. In contrast with this, the kidney moves bodily from place to place, upward and downward, outward and inward, and often can be made to disappear.

Appendicitis, especially chronic, has frequently to be diagnosed from the symptoms of movable kidney. These conditions also frequently occur in the same patient at the same time. Tumor may be present in both conditions; in appendicitis it is usually of gradual formation accompanied by pain, tenderness and more or less fever. The mass may be more or less movable if it consist of an appendix wrapped in an omental envelope. The kidney tumor is more regular in outline, less tender to pressure, and can be moved freely upward, and especially into the loin. Fever is not common with movable kidney. Leucocyte count would also be an aid to diagnosis.

New growth involving the stomach or intestines, small ovarian cysts with long pedicles, enlarged spleen, etc., all have to be borne in mind when arriving at a diagnosis.

Treatment.—In many the symptoms are so slight that no treatment is necessary. The general health should be looked after, constipation avoided, and such forms of exercise as might increase the displacement should be avoided.

Many cases, even those with much displacement, are relieved by the wearing of a properly fitted binder having a large pad placed immediately below the kidney. Care must always be taken in applying the bandage to see that the kidney is first reduced to its normal position.

When the symptoms are not relieved by quiet and rest, tonic treatment and mechanical support, operation should be advised.

Nephropexy, or the suturing of the kidney in place, is an operation, with a mortality of about one per cent. and is successful in the majority of cases. Nephrectomy should never be performed for this condition alone.

We would like to consider the various forms of perinephritis, perinephritic abscess, hydronephrosis, injuries and tumors involving the kidney, but time will not permit.

In the time left at our disposal we would make a few observations on so-called pus kidney. Here we may have suppurative pyelitis, pyonephrosis and suppurative pyelonephritis and tubercular kidney. These conditions are frequently present and often are allowed to exist for months before an accurate diagnosis is made and treatment instituted. These conditions are due to direct infection, and naturally the sooner treated the better the results.

*Symptoms.*—Polyuria is a frequent condition and observed even in the earliest stages, and is accompanied by frequent and often painful urination. In many cases the symptom of frequent and painful urination is taken to indicate a cystitis, and treatment is directed toward this. We wish to especially emphasize this, as it has frequently happened to have a case referred to us for treatment of the bladder when as a matter of fact the bladder was the seat of irritation or inflammation only secondary to a lesion of the kidney.

Pain in the back or referred to the kidney is not a constant symptom. Pain may be very slight, present at times and absent at others, or may be severe and present at all times. Sometimes the pain takes the character of nephritic colic from the blocking of the ureters by pus or shreds.

Fever is usually present and depends on the acuteness of the infection. It frequently runs as high as  $104^{\circ}$  or  $105^{\circ}$ , while the process is in the acute stage. Later it may fluctuate between  $99^{\circ}$  and  $102^{\circ}$ . The fluctuations are those of sepsis and may be accompanied by chills more or less severe. In pyonephrosis the course is rather subacute or chronic and may exist for several years before the severer constitutional symptoms appear, while pyelonephritis is an acute and rapid process and runs its course in a few weeks. In the latter condition the chills are distinct and accompanied by high fever, headache, vomiting, and finally patient passes into the typhoid state.

*Physical Signs.*—Palpation reveals the kidney more or less enlarged and tender. It may or may not be displaced. Pressure in the back will frequently be more painful than over the abdomen. The more acute the process the greater the tenderness. In some cases of pyonephrosis the tumor is so large that, in the emaciated patient, it can be distinctly seen.

Owing to the surrounding inflammation and adhesions the tumor is usually only slightly movable. The tumor may change much in size from time to time. The ureter may become blocked

and the secretions are thus retained for a time, increasing the size of the tumor. The pressure thus becomes so great that the obstruction is overcome, and coincident with the appearance of an increased amount of pus in the urine is a diminution in the size of the tumor.

The cystoscope is very useful in these cases in eliminating the bladder as the source of trouble and in permitting of urethral catheterization. Efforts should always be made to collect the urine from each kidney independently. This may be done either by urethral catheterization or the use of the Harris segregator. The latter is not as accurate and is quite as painful as the use of the cystoscope.

Pus in the urine is fairly constant, but, as has already been pointed out, may disappear for a short time during blocking of the ureter of the affected side.

The microscopical and chemical examination of the urine, while not positive in determining the lesion, are a great aid, and we have a table prepared for us by Dr. Duffield which shows the comparative changes in the urine contaminated by pus from the bladder and that from the kidney direct.

#### URINARY CHANGES.

##### ABSCESS OF KIDNEY.

*Quantity.* Usually diminished. Variable, however. Blocking of ureter will cause diminution and relief of obstruction, temporary increase if disease is unilateral.

*Appearance.* Pale, cloudy, dirty yellow with heavy sediment, except where ureter of affected kidney is blocked. In this condition urine will be normal in appearance.

*Odor.* May be aromatic, often putrid and offensive, particularly when accompanied by a cystitis or where a saccululation has occurred in kidney or pelvis allowing ammoniacal fermentation.

*Reaction.* Acid as a rule, except as above under "odor".

*Urea.* Diminished.

*Specific Gravity.* Usually lowered.

*Albumin.* Usually large amount. Proportionally greater than amount of pus and blood.

*Crystals.* Hæmatoidin crystals from hemorrhages not unusual.

*Casts.* May be either present or absent. Pus casts.

*Red Blood Cells.* Always present, though in small numbers. More numerous in acute abscesses.

*Pus Cells.* Always present, large number the rule.

*Fat Globules and Granules.* Lying free and occupying the pus cells and epithelia.

##### CYSTITIS.

Unaltered.

Varies; early and in mild cases normal. Turbid in severe cases; viscid from large amount of mucus.

Normal at first and in mild cases. Usually putrid and ammoniacal.

Usually alkaline. May be acid at first and in mild cases.

Unchanged.

Normal, may be slightly higher or lower.

Usually small in amount, only a trace. Considerable if much pus is present.

Oxalate of lime, urate of ammonium, triple phosphates.

Absent.

Present in severe grades and when due to stone.

Present, amount depending on severity.

Present in chronic cases.

##### ABSCESS OF KIDNEY.

*Mucus.* Absent, or very small amount.

*Epithelium.* From tubules and pelvis.

*Bacteria.* Present.

*Debris.* Connective tissue shreds.

The microscopical elements will be absent in a unilateral condition when the ureter is blocked, also to a variable degree where abscess is surrounded by dense membrane.

##### CYSTITIS.

Always present. Amount may be large enough to make urine ropy and viscid.

Epithelium from superficial and deeper layers of bladder.

Present.

Connective tissue shreds in severe inflammation.

The radiograph will frequently show the presence of abscess at the site of the kidney and may help to prove the existence of either unilateral or bilateral disease.

*Surgical indications.*—Here surgical interference must take place to prevent death from uræmia or septic infection. In simple pyelitis internal treatment may bring about a cure. In pyonephrosis simply nephrotomy or drainage of the kidney may suffice, but if the process has involved most of the kidney structure or the general condition of the patient is much exhausted, nephrectomy is the only operation to consider provided the other organ is known to be healthy.

#### MICROTIA: WITH AN ACCOUNT OF TWO CASES OCCURRING IN MEMBERS OF THE SAME FAMILY.

BY WILLIAM C. BRAISLIN, M.D.,

Aural Surgeon, Brooklyn Eye and Ear Hospital, Brooklyn, N. Y.

Microtia may be defined as an anomalous shape of the external ear in which its entire conformation is defective and in which the distinctive parts of the ear are lacking. This state of the ear in most cases has associated with it an absence of the meatus. There may be a slight depression at the site of the auditory canal. With these deformities the ossicles and middle ear may be defective or lacking, and even the labyrinth may be rudimentary.

Most operations undertaken with a view of constructing an external auditory canal have been failures so far as the establishment of an ability to hear with the affected ear is concerned, from the fact that concurrent defects of the inner ear and conducting apparatus are commonly present. In all the cases I have seen, which are but few, one ear only was affected. The condition may, however, be bilateral.

It is said that an impairment of the mental faculties frequently accompanies deformities of the ear. No cases of this kind have fallen under my observation, though they doubtless occur.



As regards the treatment of this condition, the most that can be promised is an improvement in the appearance of the ear by surgical intervention. The essential auditory mechanism is so frequently involved that but little ground exists for confidently expecting surgical intervention to accomplish any improvement in hearing.

Where the rudiment of a canal exists it may be carefully enlarged by operative means, and deformities in shape and position may be partially rectified by plastic surgery. When microtia exists it is not reasonable to expect to secure by any plastic operation a perfectly modeled ear. An approximate result, only, can be obtained. It is proper to consider the advisability of an entire removal of a deformed appendage and the substitution of some mechanical device. Either course, however, presents its own difficulties.

Through the courtesy of Dr. George Drury, of this city and Society, I am enabled to report a case of anomalous congenital deformity occurring in two children of the same family exactly simulating each other, the same side being affected in both cases. The rarity of microtia renders this instance one of remarkable interest, and as far as a thorough search of aural literature on my part warrants, it is one altogether unique. Students of the causes and results of maternal impressions may find in the cases a strong support of the maternal impression theory; or, on the other hand, the believers in the doctrine of chances may be herein strengthened in their argument.

The history of the two cases is related by Dr. Drury as follows:

"It is impossible for me to give you but a brief history of the cases, as I made no special examination of them at birth, and it has been impossible for me to see the deformities of late. The family is very sensitive regarding the abnormalities, and consequently keep the ears hidden from sight and do not wish any attention drawn to them. The parents are both healthy and give a good family history, Jewish parentage, nervous temperament and the mother of a very impressionable nature. Her first child, female, was born in December, 1894, normal labor, child perfect. The second child, a female, was born in March, 1896, labor normal. On examination of the child I found a rudimentary ear, that is, a fleshy growth over the right auditory canal, oval in shape, smooth and an indentation in the skin about the middle of the growth. It contained cartilage. The approximate measurements I should estimate were, in length  $\frac{1}{2}$  inch,

and about  $\frac{1}{4}$  inch in width. The mother was greatly depressed (mentally) after the birth of the child, and positively declared she would never give birth to another child, fearing it would not be formed perfectly. Four years later she again became pregnant and consulted me as to the advisability of her having another child, as she feared the same deformity might exist again. I assured her I did not think it possible for her to have another child with a similar deformity. This did not reassure her, for she worried all through the period of gestation, and the impression grew stronger as the time approached for her to be confined. After a normal delivery of a female child, the first question she asked was if the child's ears were perfect. On examination I found the identical deformity which existed on the other child, and I could detect no difference in its general appearance. It was also the ear of the same side as was affected in the other child."

#### A BRIEF REPORT OF A YEAR'S HOSPITAL (PRIVATE) WORK.<sup>1</sup>

BY L. GRANT BALDWIN, M.D.

The gynecological field has been so thoroughly threshed over by our most able writers, and, as I have never invented a new instrument or thought out or suggested a new operation, I am forced to fall back for a paper this evening on simply a sketch of a portion of my work during the year just past. The cases which I shall ask you to briefly review with me came under my care at the Skene Sanitarium—in number 101. I present them, with the immediate results, for your impartial criticism. Of course, remote results are much more satisfactory, and I shall be pleased to make further report of some of the cases herein mentioned at a later date.

These 101 cases are made up as follows:

Abdominal Operations .....	57
Plastic Operations on Cervix and Vagina...	18
Curettings for Various Conditions .....	5
Dilatation and Curetting for Dysmenorrhea..	3
Vaginal Sections. ....	3
Vaginal Hysterectomies. ....	6
Strangulated Umbilical Hernia. ....	1
Rectal. ....	4
Obstetrical. ....	3
Coccygodynia. ....	1

101

<sup>1</sup>Read before the Brooklyn Gynecological Society.

Out of the 57 abdominal operations there was one death.

These cases may be classified under the following diagnoses: That of the strangulated umbilical hernia.

Appendicitis—Acute. ....	7
Appendicitis—Chronic. ....	11
Myofibroma complicating Pregnancy.....	2
Ovarian Fibroma. ....	1
Ovarian Cysts—ordinary Multilocular. ...	7
Unilateral. ....	4
Bilateral. ....	3
Carcinomatous Cyst of Both Ovaries involving both Fallopian Tubes and the Large Intestine at the junction of the Sigmoid Flexure and Rectum. ....	1
Dermoid Cysts. ....	4
Unilateral. ....	3
Bilateral. ....	1
Tubercular Peritonitis. ....	1
Empyema of Gall-bladder. ....	2
Carcinoma of Gall-bladder. ....	1
Pyosalpinx. ....	8
Unilateral. ....	1
Bilateral. ....	7
Chronic Oöphritis with Adhesions and Cystic Degeneration. ....	5
Unilateral. ....	2
Bilateral. ....	3
Multiple Fibro-myoma ....	4
Posterior Deviation of Uterus. ....	3

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57

Vaginal Hysterectomy was done for Cancer of the Uterine Body 4 times; Multiple Fibroma 1, and Multiple Fibroma with Ovarian Abscess 1.

Of the vaginal sections, one case was done for pyosalpinx, one for post-uterine puerperal abscess, and one for acute salpingitis.

Of the plastic operations on the cervix and vagina two were for complete laceration of the sphincter and two for complete procidentia.

No special interest attaches to the dilatations and curettings for various causes. The same may be said of the obstetrical and rectal cases.

In this number of cases there were many of more than ordinary interest to the reporter, but I shall weary you with the details of but a few.

Of the acute cases of appendicitis there were two with a rather general septic peritonitis, in which operation had been delayed against the advice of the attending physician. These two cases and one other of appendical abscess were the only abdominal cases in which drainage was employed

—iodoform gauze in column being the material used. In one of these cases a fecal fistula still exists now four months after operation.

To the two cases requiring a myomectomy for fibroid tumors complicating pregnancy, I shall ask your attention more in detail. The first, Mrs. C., age 38, pregnant four and a half months with her first child, was seen by me in consultation, presenting the following condition: pulse 120, temperature 100°, abdomen distended and tender throughout. A large mass, the size of a fetal head, was made out situated in the left upper quadrant of the abdominal cavity. The uterine tumor could be felt below and could be easily differentiated from the mass above. There was a slight vaginal discharge of blood with some come and go pains—otherwise no evidences of miscarriage existed. My diagnosis at this time was a probable fibroid with a long pedicle, which had become twisted upon itself, causing an acute peritonitis. Delay was advised until the question of the uterus emptying itself could be settled. Two days later she entered the hospital and the abdomen was opened in the left linear semilunaris for a distance of six inches. The tumor was found to be a fibroid with a half twist in the pedicle and adherent throughout its upper and superior surfaces to the parietal peritoneum; the adhesions were recent and easily separated, and its attachment to the uterus was three and a half inches. The tumor was enucleated and the uterine wound found closed with catgut.

Another growth the size of the closed fist was found anterior to the broad ligament on the left side. This had a small pedicle and was ligated and removed. The abdomen was closed with through and through sutures of silk worm gut, the peritoneum and fascia being stitched with fine catgut. The uterus made no attempt to empty itself, and the convalescence was without incident. The patient was delivered at term without any untoward happenings. She was instructed to wear an abdominal supporter, which was constructed to accommodate the increasing fetal tumor, and up to the present time has developed no abdominal hernia. The baby is now five and a half months old.

The second case of fibroid complicating pregnancy, Mrs. G., age 38, pregnant four months with her first child, presented the following conditions: A fibroid the size of a large grape fruit in the posterior cul-de-sac and forced tightly against the promontory of the sacrum, which caused her to suffer from pressure symptoms.

In the matter of the pregnancy at this time I



was, to a certain extent, in error, the fact of her being four months pregnant being determined later. I believed that nearly the entire abdominal mass was made up of the fibroid, the uterus being small and in front, and the pregnancy existing at a much earlier date. The swedged condition of the fibroid, and the almost certain abortion to follow, and if not the complicated labor, was my reason for advising its removal, which was done a few days later.

When the abdomen was opened the four months pregnant uterus appeared under the incision, and I am frank to say that never in my experience in abdominal surgery have I been so entirely at a loss as to the best course to pursue. It was soon found that the uterus was completely doubled upon itself, the attachment of the fibroid being to the anterior wall of the uterus, and located, as I have indicated, in the cul-de-sac. Why an abortion had not occurred weeks before was, and still is, a mystery to me.

Even at this stage of the operation it was not easy for me to determine whether the main enlargement was due to the pregnancy or to another soft fibroid. It was, however, decided that it must be due entirely to the pregnant uterus, and the tumor was enucleated from its anterior wall. The fibroid was sessile, and when removed left a gaping wound in area nearly that of the palm of the hand. There was but slight hemorrhage, which was controlled by the introduction of cat-gut sutures. The convalescence was without incident, and the patient is still to be delivered.

No special interest attaches to the cases of ovarian tumors, except that one was complicated by a twisted pedicle causing a peritonitis, which was the immediate indication for interference.

Of the Dermoid Cysts there were three with twisted pedicles, which also caused symptoms demanding immediate interference. The large percentage of twisted pedicles of dermoids I assume is accounted for by the natural position which they assume in the abdominal cavity. Several of these cases contained bony formations, the details of which would be too long for our consideration.

As a type of the patients suffering from pyosalpinx, I would report the following: Mrs. W., age 45, multipara, was seen by me in an exacerbation of a chronic pelvic inflammation due to the escape of septic material from one of the distended tubes. This condition had existed for several days, with a constant increase in the gravity of the symptoms. A similar attack six months before had been recovered from and fairly good health enjoyed in the interim. Operation took place 24

hours later, delay being inadvisable on account of the severity of her condition. Both tubes and ovaries were found distended with pus, with peritubo-ovarian abscesses on either side, the entire pelvic being filled with exudate, and adhesions, old and recent, to the surrounding tissues. Pus was spilled during the enucleation from each side, the tubes were dissected into the horn of the uterus, the appendix removed, and the abdomen closed without drainage. Convalescence was comparatively smooth for three days, when a gradual rise in temperature and pulse ensued, until on the seventh day the pulse reached 140 and the temperature  $104^{\circ}$ , with corresponding abdominal symptoms.

The abdominal sutures were at this time removed and the skin and superficial union found perfect. The location of the sepsis was as yet undetermined. Two hours after the removal of the stitches the lower end of the wound separated and a large quantity of a most fetid pus was discharged. The skin union was opened throughout its entire extent, and the most extensive condition of necrosis of the fat, fascia and all the tissues down to the rectus muscle was found. The general condition improved somewhat at this time, and after twelve weeks the patient was able to leave the hospital in fairly good condition. During the time there was much abdominal distention; action of the bowels was secured only with the greatest difficulty.

The patient remained generally septic for about six weeks. Ergot hypodermatically was used for the distention with apparent success. Antistreptococcus serum was given and perhaps deserves some credit for her recovery. At the end of two weeks a large quantity of muco-purulent material was discharged from the rectum, and in the opinion of Dr. Jacobson, whose patient she was, came from a post-uterine abscess rupturing into the rectum. In this opinion I do not concur, believing rather that the condition came from a proctitis from the frequent rectal medication which was required.

With regard to the abdominal hysterectomies I wish to say only a few words. I still believe that the Wight clamps are the most valuable instruments on the market for this purpose, and I might here say that my feeling more and more is, that all multiple fibroids should be removed, believing that they are as malignant as ovarian tumors—by malignant I mean capable of jeopardizing and which probably will jeopardize their possessor's health or life. The exceptions to this rule must indeed be few.

One feels almost like apologizing for doing a

ventral suspension at the present time in the face of so much evidence, written and spoken, against it. Nevertheless, I believe that in certain cases of posterior deviation of the uterus it is still the best procedure. I have nothing new to suggest in regard to the technic, except that care should be taken to secure a suspension and not a fixation, and to accomplish this, one, or at most two, sutures are put through the undenuded fundus and the uterus supported in its antverted position by means of a pessary for from six weeks to three months.

Of the four cases of vaginal hysterectomy for cancer of the uterine body, two died; one death being caused by an embolus of the mesenteric artery causing gangrene of the small intestines for a distance of three and a half inches and situated eleven inches from the cæcum.

The other fatal case was one which would have been better unoperated, she being 68 years old and not in a promising general condition. I was induced to operate by the earnest solicitation of the patient herself, she fully understanding that her chances of recovery were slight. In this case the uterine body was a mass of carcinomatous tissue, and in removing it the finger would break completely through its wall. She died of cardiac failure at the end of 48 hours, not having resistance enough to survive the ordeal. Had I realized the full extent of the disease I would never have consented to operate.

One other fatal case occurring during the year, was from a strangulated umbilical hernia in a woman passed 60, who had suffered with the condition for five years, and when seen by me had been partially strangulated for at least 36 hours.

The fourth, and last, fatal case was the one with bilateral malignant disease of the tubes and ovaries involving the bowel. In this case my diagnosis prior to operation was absolutely incorrect, she being a young woman with a rather short history. My diagnosis was that of an ovarian cyst—possibly complicated by fibroid.

As to the vaginal sections, the one of special interest was Mrs. W., age 45, first taken sick on shipboard, where she remained for thirteen days crossing the Atlantic, and when seen by me presented the usual picture of infection following a ruptured pelvic abscess—such was my diagnosis, i.e., a post uterine abscess. On opening the cul-de-sac a considerable quantity of thick, creamy pus was evacuated, and then for the first time I was aware that I had a distended tube to deal with. The patient had never borne children, and with a contracted vagina, the enucleation of a

pus tube the size of a Frankfurter sausage and situated on the left side, was accomplished with the greatest difficulty. The right tube and ovary were masked by adhesions, but my belief was that they were not distended with pus. The patient's condition being critical from a rather prolonged anaesthetic, I was induced to leave them in situ. Her convalescence was stormy. She had frequent rises of temperature and pulse, with nausea and vomiting, but her recovery at the end of four weeks was fairly good, and she is now in perfect health.

The main point that I would suggest in regard to the treatment of pelvic pus cases through the vagina is in respect to the length of time gauze drainage should remain undisturbed, my custom being not to remove it until the seventh day. By this time a permanent drainage tract will be established, and in the majority of cases will require no further care.

Complete procidentia with cystocele and rectocele is perhaps seldom treated by plastic operations on the vagina and cervix alone at the present time. The two cases occurring in this series were so treated by me—the immediate results being satisfactory. In the cervix operation I still believe that silver wire is the best material. The operation done on the sphincter cases was that devised by Dr. Emmett, or as nearly so as I am able to follow.

Of the cases of pyosalpinx or chronic tubo ovarian inflammation, I was able to do a conservative operation on one or both tubes and ovaries in seven cases, and so far the results are good. An illustrative case of this type is Mrs. D., who had a bilateral infection of both tubes and ovaries, in which I left the smallest fringe of the right ovary. This case had other interesting features, she having had a normal labor four months previously, there being no evidence of infection at the time of labor, and I am sure there was no infection subsequent from her husband. Two days after the operation she was able to and did nurse her four months' old baby.

The remaining case which I would like to call to your attention is the one mentioned as suffering from coccygodynia. This woman was a typical example of the so-called neurotic female, and had passed through the hands of many physicians, the reporter being one of the number—her aches and pains being attributed to neurosis. She was finally sent back to me from the country with instructions from her family physician that I must do something to relieve her.

After a careful search for pathological lesions



and due consideration being given to the condition of her nervous system, I was led to remove the coccyx, in the region of which she complained of constant pain. Much to my surprise it was found in a condition of complete necrosis. The recovery was satisfactory, and she is now, three months after operation, in better condition than she has been for years. When under my care previously, I had repaired a lacerated cervix and perineum and had done a ventrosuspension, subsequent to which she passed through a normal labor. The appendix was not removed at the first operation, it being considered normal, and the anaesthetic having already been prolonged to what I considered her limit of endurance. The pain continued in the right side, as well as the region of the coccyx, and at the time the coccyx was excised, the appendix was removed.

This case, as well as many others, leads me to observe, that in the vast majority of patients in whom we ascribe their indefinite pains and complaints to the nervous system, some pathological lesion, intra-abdominal or otherwise, might be found to account for the suffering.

#### TECHNIC OF VAGINAL HYSTERECTOMY.

I still believe that the combined method—forceps and ligature—offers the quickest and best means to perform the operation. Here also I use the Wight clamp, and find it as useful as in abdominal hysterectomies. The ovarian artery with the upper part of the broad ligament is tied with catgut. The great objection to clamps has been the amount of pain complained of. It has not been my experience that there has been more pain when only one clamp is used on each broad ligament than where ligatures are used.

Throughout the year infection has not occurred in the wound of a clean case, and in only one, that of Mrs. W., already reported, was there any infection, even in the already infected cases, requiring a second dressing.

My general custom is to close the peritoneum with fine catgut, than the fascia and rectus muscle being closed in a running suture, every other loop of which is put through the muscle. The fat and skin are usually closed with through and through sutures of silk worm gut, or in thin abdominal walls by a subcutaneous silkworm gut, I would here say that in all cases of through and through sutures I use the Reverdin needle, going from without in.

My usual custom after all abdominal operations, in which pus has been spilled, is to irrigate the cavity with hot saline solution with the patient in a slight Trendelenberg position, leaving

the abdomen full. All cases while on the table receive an enema of saline, whiskey and opium.

The use of gauze pads or other devices to protect the abdominal contents from spilled pus is never employed. An occasional laparotomy pad to keep the intestines out of harm's way from my own hands and that of my assistant is sometimes used, the first one being removed before a second is introduced; my belief being that it is impossible to prevent soiling by any of the suggested means when an abscess has ruptured, and that the irritation to the peritoneum covering the intestines and other viscera from the contact of the foreign materials does more harm than good.

It has been my feeling for some time, that we do too much in the matter of the preparation of the skin before operations, and following out this idea I have for several years done away with the drastic measures which formerly I had employed, believing that to remove the epidermis with a stiff brush and strong solutions of bichloride of mercury only produces a fine field for vaccination, it being acknowledged that no matter how much the abdomen is scrubbed, the skin cannot be gotten free from germs.

In the preparation of the abdomen previous to abdominal operations a brush is not allowed to be used, and nothing more severe than the softest gauze obtainable. After the parts have been shaved, following the general bath, the abdomen is washed with green soap and sterile water. This in turn by 1 to 4,000 bichloride of mercury, and this followed by rinsing with sterile water. This is followed by the application of a sterile dressing, which is not removed until the patient is on the operating table, unless necessity has required it. No washing whatever is done on the operating table, the site of the incision being simply washed off with alcohol and ether.

In regard to the after care of abdominal cases there is nothing new and little worthy of comment. As a routine my cases receive a pint of saline every three hours per rectum until gas is passed independent of the enemas. Two grains of calomel are given in broken doses the evening of the operation, this to be followed by sulphate of magnesia the next morning, my aim being to secure the free passage of flatus, and getting a full movement of the bowels as soon after the end of the first 24 hours as possible.

Morphine is given in small doses to the amount necessary to induce sleep and comparative freedom from pain. Sterile water is given freely as soon as the patient can swallow—practically regardless of nausea and vomiting.

In the control of nausea following the admin-

istration of ether, I have found bromide of soda to be the most efficient remedy. A suggestion made in a paper read by me before the Woman's Hospital Society several years ago to administer two ounces of sulphate of magnesia immediately preceding the administration of the anaesthetic has proved of service in many difficult cases, where I had reason to believe that trouble would be experienced in securing an action of the bowels.

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#### PARATYPHOID FEVER.<sup>1</sup>

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BY WILLIAM V. PASCUAL, M.D.

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The paper which I am about to present to the society may not prove to be of great interest for various reasons. In the first place, it deals with a subject which is in an experimental stage at present. Secondly, it treats of a condition the diagnosis of which depends entirely upon the assistance of a well equipped laboratory, such as, unfortunately, cannot be had in private practice, and, more unfortunately, does not exist in St. Mary's Hospital to-day. Nevertheless, I trust that it shall prove of sufficient interest to promote discussion of this subject and the allied condition, typhoid fever.

Since the value of the Widal reaction was first brought to our attention, many cases clinically considered as typhoid fever have failed to respond to this reaction. Since 1896, and especially during the past three years, a number of investigators have given these cases close study, and from many of them have isolated a micro-organism closely allied to both the bacillus typhosus and the bacillus coli communis, but differing from both in its chemical, cultural and serum reactions, producing a disease closely resembling clinical typhoid, but in reality proving to be a distinct entity.

To-day we do not have to depend upon the appearance of the Widal reaction to confirm our diagnosis of typhoid fever. The investigations of Schottmüller (1), Hewlett (2), and others, show that the bacilli of typhoid fever are demonstrable very early in the blood in from 80 to 90 per cent. of unselected cases. Schottmüller has found it as early as the second day of the disease and also in the first twenty-four hours of relapse after two weeks of complete intermission of fever. This is a more dominant feature in the pathogenesis of typhoid fever than heretofore believed. The diag-

nosis value of this method is greater in the initial stage of an attack than the agglutination reactions, and Schottmüller believes that the number of bacilli—as demonstrated by the number of colonies—bears a relationship to the height and severity of the disease. Thus also, may the cause of this new condition be demonstrated early in the blood.

Up to the present time there have been 113 cases recorded, of which all but 34 have been reported during the past two years.

*History.* The first case of paratyphoid fever was reported in 1896 by Archard and Bensaude (3) of Paris. A female, 24 years of age, gave a history clinically resembling typhoid fever, with an intercurrent relapse followed by a femoral phlebitis and cystitis, and in which the Widal reaction was absent. The paratyphoid bacilli were twice isolated from the purulent urine. At the same time they reported a case in an infant seven months old, in whom, following a febrile illness of three weeks, there developed a suppurative inflammation of the right sterno-clavicular joint, from the pus of which the paratyphoid bacillus was isolated.

In the following year, 1897, Widal and Nobecourt (4) isolated the paratyphoid bacillus from the pus of an abscess developing in the neck of a male phthisical patient.

Brill (5) in 1898 reported a series of seventeen cases occurring at Mt. Sinai Hospital. Although presenting the picture of typhoid, there were sufficient clinical differences to warrant a different diagnosis. The Widal reaction was absent in all, and although being unable to isolate the causative micro-organism from either the blood, feces, or urine, the absence of the typhoid bacillus was positively established. These cases probably belonged to this group.

Tavel and Lanz (6) isolated an organism similar to the paracolon bacillus in several cases of peritonitis.

Then followed a series of more closely studied cases with positive bacteriological tests, which placed this disease in a more prominent position before the medical world.

Gwyn (7) of Baltimore, in 1898, gave a full report of a case in a man 28 years of age who suffered from a typical typhoid with intestinal hemorrhages. The Widal was absent and the paracolon was isolated three weeks after onset.

Malherbe and Mounier (8) isolated the paratyphoid bacillus from a case of inflammation of the penis with induration of the corpus cavernosum.

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<sup>1</sup>Read before the Association of Alumni of St. Mary's Hospital.



Cushing (9) in 1900 made report of a case in a man, age 27 years, who had a clinical typhoid for ten weeks, which was followed by a relapse beginning with epistaxis. During convalescence he developed two foci of costo-chondral osteomyelitis, one of which disappeared and the other opened six months later, and from this discharging sinus, nine months after onset, the paratyphoid bacillus was isolated in pure culture.

The investigations of Schottmüller (11) of Hamburg are of great value. In 1900 he reported the case of a man, 26 years of age. Following a fever for twelve days beginning with conjunctivitis and rhinitis, and continuing with roseola, enlarged spleen and absent Widal, convalescence ensued. The paratyphoid bacillus was isolated in culture at the height of fever. Later (12), in 1901, he reported six cases, all of short duration, 12, 19, 17, 16, and 13 days, and all ending by lysis and recovery. All showed absent Widal, and in each he isolated a "typhoid-like" bacillus. All were in men between 15 and 60 years of age. He made a full report of the bacteriology of the condition to which I shall allude later on.

Blumer (10) found a bacillus in a post-typhoidal rib abscess which he called a bacillus coli communis, but its chemical reactions point toward the probability of its belonging to the paratyphoid group.

Kurth (13) of Bremen recorded five cases in 1901. The Widal was absent and the paracolon bacillus was isolated from the urine. With this culture a positive serum reaction was obtained with the serum of the other four patients. Clinically the cases resembled the old cases described as gastric fever. The duration was 21, 15, 12, 18, and 14 days. Roseola appeared in two cases on fifth and sixth days. Diarrhoea was present in all. The temperature dropped by crisis in one. No complications were reported.

During 1902, there were 69 cases reported as follows: Brion and Kayser (14) of Strasburg—a young girl of 16 years, who had a gonorrhœa with abdominal pain, constipation, slight fever and palpable spleen. She was discharged after two weeks but returned in three days with a renewal of symptoms and a roseola. A second relapse followed, and during convalescence a left femoral thrombosis developed. The fever lasted 9 days, 15 days and 16 days. After first relapse the fever fell by crisis, and after second relapse by quick lysis (3 days). The paracolon bacillus was isolated from the blood, urine, feces and rose-spots.

Strong (15), from the Philippines, isolated

post-mortem from the spleen of a soldier who died with a supposed typhoid fever, a bacillus resembling the paracolon. The organs showed signs of acute infection, the intestines being normal, there being no ulcerations of the ileum, although there had been intestinal hemorrhages.

Coleman and Buxton (16), of New York, reported a case in a colored girl, 28 years old in whom there was an onset with chill, fever, vomiting, epistaxis, headache and diarrhoea. Later the spleen was palpable, abdomen tender, and constipation. The fever dropped by crisis on fourteenth day, and later showed remissions for another week, when it remained normal. The Widal was absent. The blood on two occasions gave the paracolon bacillus.

Libman (17), of New York, describes an interesting case of double infection with typhoid fever. The case resembled one of cholecystitis or liver abscess, with absent Widal at first, later becoming positive in high dilutions. The paracolon bacillus was isolated from the blood, from the contents of gall-bladder and from the urine during life. It was agglutinated by the patient's serum. No typhoid bacilli were found. The case terminated in death, pleurisy and peritonitis developing,—and at autopsy, healed ulcers were found in ileum.

Hume (18), of Liverpool, reported a case of 53 days' duration, with one relapse, intestinal hemorrhages and cystitis. Widal was absent and paracolon bacillus was isolated from feces and urine three weeks after fever subsided.

Johnston (19), of Baltimore, had four cases.

Hewlett (20) and Longscope (21) reported cases with extensive study of the bacillus and the pathology of the disease.

Hünemann (22) had an epidemic of 38 cases in 19 of which positive reaction and cultures of paracolon bacilli were obtained. De Feyfer and Kayser (23), of Erbergen, also reported an epidemic of 14 cases, in five of which positive tests resulted. All but one had complications, two with intestinal hemorrhages. One ran a severe course, one an afebrile course, in which also a mixed infection with typhoid fever was demonstrated by serum reactions.

Von Sion and Von Negel (24), in Roumania, had five cases, with one death.

In 1903 there were reported three cases by Allen (25), of Cleveland; three by Pratt (26), of Boston; two by Reudiger (27), of Chicago, and last month seven cases by Tuttle (31), of New York, and two by Smith (32), of New York.

Of the total 113 cases so far recorded, over

60 per cent. have been positively confirmed by bacteriological examinations. Of the unconfirmed cases, some occurred in epidemics in which not all were submitted to laboratory tests, as in Hünemann's (22) 38 cases, 19 of which were positively confirmed; and in De Feyer and Kayser's (23) 14 cases occurring in four families. One case from each family showed absent Widal, and the agglutination of Schottmüller's bacillus and on them the diagnosis was made in all.

In all of the confirmed cases the descriptions of the micro-organism do not entirely agree, but each represents some one of the many bacilli which belong to the group intermediate between the bacillus typhosus and the bacillus coli communis. In Brill's (5) 17 cases the diagnosis was made on absence of Widal, absence of bacillus typhosus and the different clinical picture.

*Etiology.* This condition, although apparently rare, enjoys a very wide geographical distribution, occurring thus far in France, Germany, Holland, Roumania, England, Philippines and in this country in New York, Baltimore, Philadelphia, Cleveland, Boston and Chicago.

The source of the infection in the majority of cases is unknown. It has been found in well water by V. Sion and Von Negel (24), and in De Feyfer and Kayser's (23) epidemic it was also through the water supply. Schottmüller's assistant got it in laboratory.

Like typhoid, it is more prevalent in autumn, and affects young adults principally, but children and old people are not exempt—the ages run from seven months to 60 years. It affects males more than females, the ratio being 3 to 1. It occurs in epidemics sometimes.

It seems to be more often caused by Schottmüller's Beta bacillus than the alpha, the ratio being 4 to 1. It may precede or follow a typhoid infection, or they may co-exist.

*Bacteriology.* The infection is due to a bacillus whose position is intermediate between the typhoid bacillus on the one hand and the colon bacillus on the other. The name paratyphoid was first given by Archard and Bensaude (3) in 1896. Gilbert (28) applied the term paracol on to all the groups of bacilli included in the intermediates. Schottmüller (12) made an elaborate study of the micro-organism and used the name paratyphoid. Brill (29) suggests the name pseudo typhoid fever as being more appropriate from a clinical viewpoint.

The paratyphoid or paracol on bacillus is a highly motile rod of the size and shape of a

typhoid bacillus, is provided with numerous flagellæ and does not stain by Gram's method.

It gives rise to characteristic typhoid colonies on agar and gelatine plates and stab growths in gelatine are also characteristic of the bacillus typhosus. Milk is not coagulated. On potato the growth is slight and there is no discoloration. It ferments maltose, dextrose and lactose with formation of gas, less gas, however, is produced in lactose media than in those which contain maltose and dextrose. Saccharose and starch are not fermented.

It possesses no hemolytic power upon dog's blood and is not agglutinated by a pure anti-typhoid serum in any dilution.

There are two distinct species of paratyphoid bacilli according to Schottmüller (12) and Buxton (30) which are distinguished by their differing physiological reactions, as well as by their differing serum reactions. This shows the importance of testing blood with both groups. Schottmüller calls them groups A and B. Buxton calls them Alpha and Beta.

	Coagulation of Milk.	Fermentation of Lactose.	Fermentation of Glucose (with gas formation).	Indol.	Widal Reaction.
Paracol on .....	—	—	+	—	—
Typhoid .....	—	—	—	—	+
Colon .....	+	+	+	+	—

*Pathology.* It is usually a general infection showing the usual lesions of such a condition—i. e. an acute splenic tumor, cloudy swelling of liver and kidneys and focal necrosis of liver. There are usually no local lesions, no ulcers in intestine, and Peyer's patches and the solitary follicles are normal. The five cases in which intestinal hemorrhages occurred would indicate, however, the possibility of lesions of intestine. The mesenteric glands are sometimes swollen.

The bacilli have been isolated from blood, urine, feces, spleen, lungs, liver, adrenals, cerebral cortex, pericardial and pleurotic fluids and cardiac thrombus.

In all of the four fatal cases, the infections were of the Beta bacillus of Schottmüller.

*Symptoms.* Fever is usually mild, but may be severe and even fatal. One afebrile case has been reported (23). Diarrhœa and crisis of fever are more frequent than in typhoid. Chills have occurred at onset. Initial bronchitis and epistaxis are common. Relapses have occurred. Rose-



one-half of the cases. Herpes labialis has occurred in two cases. The pulse is usually slow and regular. The blood shows no leucocytosis in uncomplicated cases, and the urine may give the diazo reaction and frequently contains albumin.

Brill (29) finds two distinct forms under which the disease presents itself clinically. First, the typhoid form, showing the usual signs of toxæmia, accompanied by an involvement of the nervous system; secondly, the gastro-intestinal form, beginning more abruptly and marked chiefly by repeated vomiting and diarrhœa, with fever which may or may not show the typhoid fever type. Spots and enlarged spleen have been present in The first is the more common.

*Differential Diagnosis* may be made by an early culture of the bacilli from the blood, urine or feces and the obtaining of the agglutination reaction with the patient's blood. Cultures have also been obtained from the rose-spots and sputum.

If the patient's blood fails to give the Widal reaction and does agglutinate a culture of paratyphoid bacilli in high dilution, diagnosis is positive—if in low dilutions, diagnosis is very probable. The blood should be tested with both species of the paratyphoid bacilli.

If Widal is present in low dilutions, it does not indicate typhoid fever. Dilutions of less than 1 to 30 are unreliable (Stern (33)). Simply reporting a positive Widal in typhoid fever does not prove that it is typhoid and not paratyphoid, the degree of dilution, the absence of motility and the extent of clumping should be noted.

Clinically, some of the chief differential points so far as typical typhoid is concerned, are: No premonitory symptoms, intense early prostration, the temperature rises quite suddenly to its acme and may reach 104 or 105 in four or five days. At the height of the disease, there are morning remissions of from two to three degrees. The fall of temperature is usually by crisis or short lysis. The tongue is usually moist and covered with a white fur. There are less tympany, less abdominal tenderness, less emaciation, and the duration is much shorter.

The difference in symptoms is most likely due to the presence of the local lesion in the intestine in typhoid and its absence in paratyphoid.

*Complications.* Over 30 per cent. of cases show complications, and their number and frequency is a striking feature of the condition. Those noted are: Meningitis, peritonitis, intestinal hemorrhage, nephritis, orchitis, cystitis, cholecystitis, cholelithiasis, acute endocarditis, pleurisy, bron-

chitis, lobar pneumonia, phlebitis, osteo-myelitis, furunculosis, suppurative arthritis and abscess of neck.

*Prognosis.* Is usually good. The death rate is much lower than in typhoid fever. Thus far it is about 3½ per cent.

1. Schottmüller (Munch. Med. Wochen, 1902, Vol. 49, p. 1561).
2. Hewlett (Med. Record, 1901, Vol. 60, p. 22).
3. Archard & Bensaude (Bull et Mem de la Soc. Med. des Hospitaux de Paris, 1896, Vol. X111).
4. Widal & Nobecourt (Semaine Medical, 1897, p. 285).
5. Brill (N. Y. Med. Jour., Vol. 67, p. 47-77).
6. Tavel & Lanz (Mittheilungen aus der Klin. W. Med. Institute d. Schweiz, Vol. I)
7. Gwyn (Johns Hop. Bull., 1898, Vol. 1X).
8. Malherbe et Mounier (Compte rend de la Soc. de Biol., 1899, p. 186).
9. Cushing (Johns Hop. Bull., 1900, Vol. XI).
10. Blumer (Pacific Rec. of Med. and Surg., Vol. X1II, p. 105).
11. Schottmüller (Deutsche Med. Wochen, 1900, Vol. 26).
12. Schottmüller (Zeitschrift für Hygiene, 1901, Vol. 36).
13. Kurth (Deutsche Med. Wochen Schrift, 1901, p. 501).
14. Brion & Kayser (Munschener Med. Woch., 1902, Vol. 49).
15. Strong (Johns Hop. Bull., 1902, Vol. X1II).
16. Coleman & Buxton (Am. Jour. Med. Sciences, 1902, Vol. 123).
17. Libman (Jour. Med. Research, Vol. V1II, No. 1).
18. Hume (Report of the Thompson-Yates Laboratories, Liverpool, 1902, Vol. 4).
19. Johnston (Am. Jour. Med. Sci., 1902, Vol. 124).
20. Hewlett (Am. Jour. Med. Sci., 1902, Vol. 124).
21. Longscope (Am. Jour. Med. Sci., 1902, Vol. 124).
22. Hünermann (Zeitschrift für Hygiene, 1902, Vol. 40).
23. De Feyfer & Kayser (Munch. Med. Woch., Oct., 1902).
24. Von Sion & Von Negel (Central blatt., für Bakteriologie, 1902, Vol. 32).
25. Allen (Am. Jour. Med. Sci., 1903, Vol. 125).
26. Pratt (Boston Med. and Surg. Jour., 1903, Vol. 148).
27. Reudiger (Medicine, Detroit, April, 1903).
28. Gilbert (Semaine Medicale, Paris, 1895).
29. Brill (Med. Record, 1902, Vol. 62).
30. Buxton (Jour. Med. Research, 1902, Vol. V1II).
31. Tuttle (Med. Record, Dec., 1903).
32. Smith (Jour. Am. Med. Assoc., Dec. 12, 1903).
33. Stern (Berlin Klin. Woch., 1897, p. 225).

## PROCEEDINGS OF SOCIETIES.

### MEDICAL SOCIETY OF THE COUNTY OF KINGS.

STATED MEETING, MARCH 15, 1904.

The President, J. E. SHEPPARD, M.D., in the Chair.

There were about 75 members present.

The meeting was called to order and the minutes of the previous meeting read and approved.

#### REPORT OF COUNCIL.

The following candidates have been accepted by the Council:

Charles J. Walker, L. I. C. H., 1903.

Theodore F. Trumpp, L. I. C. H., 1903.

## PROPOSITIONS FOR MEMBERSHIP.

Applications have been received from the following:

John H. Ohly, 12 Schermerhorn Street, L. I. C. H., 1899. Proposed by J. S. Wood; seconded by W. S. Shattuck.

Horace M. Sloat, 149 Van Buren Street, L. I. C. H., 1877. Proposed by Membership Committee.

Julius C. Bierwith, 253 Henry Street, P. & S., N. Y., 1885. Proposed by Membership Committee.

## ELECTION OF MEMBERS.

The following having been duly proposed and accepted by the Council was declared, by the President, elected to active membership at this meeting:

John A. Shields, P. & S., N. Y., 1898.

## DECEASED MEMBERS.

The Chairman of the Historical Committee reported the death of the following members:

Stanley G. Clark, N. Y. Univ., 1868; died March 5, 1904; member, 1889 to 1904.

Frank L. Tetamore, L. I. C. H., 1882; died February 9, 1904; member, 1882 to 1892.

## SCIENTIFIC PROGRAM.

1. Paper: "Medical School Inspection in Greater New York," by Dr. Florence Emerson.

2. Paper: "The Relation of the General Practitioner to the Quarantine of Contagion," by Dr. Henry N. Read.

Discussed (both papers) by Dr. James N. Gaston, of Atlanta, Ga., and Drs. Hoople, Ingalls and Raymond. Closed by Dr. Emerson.

## EXECUTIVE SESSION.

*Reports of Committees.*

On behalf of the Committee on Public Health Dr. Raymond reported that the resolutions adopted at the last meeting relative to the Advisory Board of the Department of Health and a Visiting Staff to the Kingston Avenue Hospital, were presented to Dr. Darlington, President, Department of Health, who expressed his hearty sympathy with the suggestions made and his desire to comply with them, and promised that the Society would hear from him shortly in regard to the matter.

Dr. DeLong, member of the Milk Commission, reported progress in the work of his Committee,

and stated that 20,000 quarts of certified milk were sold in the city during the past month.

Drs. Bristow and Fleming reported progress in their work in opposition to the Optometry Bill.

A motion was made by Dr. Emery and seconded by Dr. DeLong, that a Committee be appointed by the President to investigate the water supply of Brooklyn. It was carried. The President announced that he would appoint the Committee at a later date.

The following resolutions were offered by Dr. Schirmer. A motion was made by Dr. Shirmer and duly seconded, that a copy of the resolutions be forwarded to the Mayor of New York in form as follows:

Hon. GEORGE B. McCLELLAN,  
Mayor, City of New York.

*Honorable and Dear Sir:*

At a stated meeting of The Medical Society of the County of Kings, held this 15th day of March, 1904, the following resolutions were adopted:

*Whereas*, There is a Bill before the Legislature of New York to regulate and grade the salaries of Inspectors in the Department of Health in the City of New York; and

*Whereas*, We fully appreciate the very important services rendered by said Inspectors for the benefit of the people of New York City and the dangers to which they are exposed in the performance of their duties, and that the salaries of many professional men trained and experienced in the duties of the various branches of the service is less in many instances than is paid for ordinary labor; it is

*Resolved*, That we unanimously endorse the Bill referred to; and it is further

*Resolved*, To present a copy of these resolutions to the Hon. George B. McClellan, Mayor of New York City, and pray that he may use his personal influence and give his official support to have the said Bill incorporated in the charter of New York City as proposed.

Signed,                      President,  
Secretary,

The following resolution was offered, and, on motion, duly seconded, adopted:

*Whereas*, Through the generosity of the following gentlemen, viz., Doctors George R. Fowler, Joseph H. Hunt, J. A. McCorkle, R. L. Dickinson, L. Grant Baldwin, N. T. Beers, Charles



N. Cox and Henry A. Fairbairn, the Board of Trustees has been enabled to erect a memorial tablet to the late Dr. A. J. C. Skene; it is

*Moved*, That a vote of thanks be extended to them.

There being no further business before the meeting, it was, on motion, adjourned.

W. C. WOOLSEY,  
Associate Secretary.

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## THE BROOKLYN GYNECOLOGICAL SOCIETY.

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JANUARY, 1904.

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H. C. KEENAN, M.D., Editor.

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PAPER: A BRIEF REPORT OF A YEAR'S HOSPITAL  
(PRIVATE) WORK.

BY L. GRANT BALDWIN, M.D.

### *Discussion.*

DR. JOHN ASPELL: I only got here at the time the Doctor spoke about his cases of pelvic abscess, and his review of the method he employs in cases of complete procidentia.

I presume, inasmuch as Dr. Baldwin and I were brought up in the same hospital, our practices are pretty much alike. In cases of complete procidentia, I pursue the different methods of pelvic work that we were instructed to do at that time, unless the case is of long standing and the connective tissue gone. Nothing absolutely unusual is claimed in these methods of operation, but it is claimed that if you cannot restore the uterus to its normal plane in the pelvis, you can turn it on its long axis so that it will not come down again. By this method you can lighten the uterus and restore it to its normal plane in the pelvis.

As far as pelvic abscesses are concerned I have learned much from Dr. Baldwin's method of drainage by means of gauze. By remaining in situ a week a canal is formed that facilitates any further drainage when the gauze is removed.

I am sorry I did not hear the full and more important parts of the paper.

DR. C. JEWETT: We are indebted to Dr. Baldwin for an interesting review of his work. There are one or two points about which I will say a word.

First, with regard to fixation and suspension of the uterus. Fixation, I think, should not be done except in women past the menopause. An intended suspension is likely to become a fixation and is therefore an unsafe operation during the child bearing age. The method of dealing with retro-displacements which has given me the best results, in cases likely to become pregnant, is the Webster operation. A loop of the round ligament is passed through the broad ligament close to the uterine wall and is fastened to the posterior surface of the uterus. This never lets go. The results are perfectly satisfactory and there is no danger of complications. I prefer it to most of the other intra-abdominal operations for the purpose. The use of a pessary is a valuable precaution. While I have had no failures after the Webster operation, wearing a pessary for six or eight weeks helps to prevent possible stretching of the shortened ligaments.

Procidentia I have not as a rule been able to treat with entire satisfaction by anterior and posterior colporrhaphy alone. In women past the menopause the plastic operations followed by a ventro-fixation may do, yet the cervix may again appear at the vulva unless the plastic work is much overdone. In other cases a thoroughly effective procedure is the following: To anterior and posterior colporrhaphy add shortening of the round and the utero-sacral ligaments. The utero-sacral ligaments are very much relaxed in these cases. By carrying the cervix well up and back the uterus is held at right angles to the vaginal axis and prolapse is impossible. It is kept resting on the pubic shelf.

For shortening the utero-sacral ligaments Bishop's method is a good one. The abdomen is opened by a free incision, the fundus is drawn well up over the pubis, an obturator pushes the posterior vaginal wall up, carrying with it the peritoneal cul-de-sac, till the utero-sacral ligaments are brought within reach. They are shortened by seizing a fold of the ligament, carrying it high up on the sacral wall and fastening it there. The loop is denuded of its peritoneum and the adhesion between cellular tissue and peritoneum is extremely firm. Boveé folds the ligament by a vaginal operation, but this is more difficult.

I can subscribe to all that Dr. Baldwin has said about the value of the Wight clamp. I have used it frequently in vaginal hysterectomy. It is practically impossible for a vessel to slip out of its grasp.

One clamp answers for each ligament. In

simple cases the operation may easily be done in ten minutes. The peritoneum opened back and front, a blunt hook is passed up behind one broad ligament and the ligament pulled down till the finger can be substituted for the hook. A clamp is applied, the ligament cut, the uterus delivered through the vulva and the remaining ligament cut and clamped.

A point that interested me is the Doctor's habit of opening the bowels early. I have never seen any harm from it. The temperature drops, tympanites subsides and the patient feels better. Early stimulation of peristalsis, too, tends to prevent adhesions and intestinal paresis.

The Doctor's objection to the gauze pack for isolation are obviated if a sheet of rubber tissue is first spread over the intestines and the gauze pads placed over this. The smooth, moist surface of the rubber tissue is much kinder to the peritoneum than gauze. When septic material is likely to be encountered in the pelvis, the pack is indispensable.

Six or eight glasses of boiled water daily for several days before operation, a glass immediately before anesthesia and the free use of hot water afterward from the moment the patient can swallow is better than hypercatharsis, and it lessens vomiting and allays thirst.

DR. J. O. POLAK: Dr. Baldwin has supplied such a wealth of material for discussion that it is hard to begin. There is one point Dr. Jewett has already referred to that deserves commendation, and that is his calling attention to the treatment of procidentia by plastic work. I think the reason that many of us fail with restitution of the uterus to its proper plane by plastic work is that we do not give these cases sufficient preoperative treatment. If we adopt the plan frequently recommended by Emmett of keeping the patient in bed with the foot of the bed raised and insert tampons of boroglyceride daily a week or so before operation, it will give us tissues to work upon. A high amputation of the cervix with an anterior colporrhaphy and the operation that has been devised by Reynolds, while it has not met with as enthusiastic support by some men as it will later, I think has given me very excellent anterior walls.

The operation as devised by Reynolds, if you remember, is practically a denudation of the anterior wall in shape thus: (blackboard drawing). It gives a very firm anterior wall.

This anterior wall operation has been extremely satisfactory following an amputation of the cer-

vix and supported by a posterior-perineoplasty, going up in the posterior sulcus and narrowing the vagina in that way. In complete procidentia where you have given preoperative treatment and used plastic work of that sort, then to follow that by a suspension or by a folding of the round ligament, will give very satisfactory results. These cases should be kept in bed for a very long period—four or five weeks. Then a pessary is introduced and they wear that pessary for a considerable length of time. I have yet to see a case of procidentia done with combined plastic operation and suspension that has relapsed.

In regard to the Bischoff operation, I have had no experience with it. Theoretically it is perfect, because the suspension of the uterus is dependent on the utero sacral ligaments. With a tight anterior vaginal wall, the cervix removed and the uterus raised to its proper plane of equilibrium, you can, I think, get a very satisfactory and permanent result.

There is an operation that I have done once during the last three months, that has been suggested by Harris for the relief of very old women with complete procidentia. He does no plastic work at all, but does a supravaginal hysterectomy and sews the cervical stump into the abdominal wound. That case so far is of too short duration to report the permanent or remote results. Theoretically it would seem better than the methods suggested by some radicals of hysterectomy in procidentia.

I cannot conceive of a case of procidentia that would be benefited by hysterectomy. We have prolapsed anterior and posterior vaginal walls, and by taking out the uterus we gain nothing, unless we tie these walls to something above.

In regard to pregnancy and suspension, I reported sometime ago 123 cases of suspension with 20 pregnancies—nine labors I attended myself with no complications. I have not found, outside of two or three operations occurring in that series, any difficulty from suspension. The only class of operations for retrodeviation of the uterus that I have found difficult is the so-called vaginal fixation of the uterus.

The point that Dr. Baldwin made in regard to pelvic abscesses, and the maintenance of gauze drainage for a long time without removal after it had been placed in position, is something that I want to endorse most heartily. Where the cul-de-sac has been opened, it is far better to leave that gauze in situ for five to seven days, as the Doctor says, and then to withdraw it and leave it out, because we then have a drainage tube



established, and the patient has little or no pain with the removal.

The Doctor interested me particularly in the report of his cases of fibroid complicating pregnancy, particularly the last case that he reported, where the tumor was sessile and a large denuded area was left. It simply demonstrates to us that it is far better to operate on these cases and that with present-day surgery we can operate without fear in a large number of cases.

In three or four cases of fibroid complicating pregnancy I have done myomectomies upon them, and have yet to see a case miscarry—the same as many of you have done operations for twisted pedicle cysts during pregnancy, and very few of these cases miscarry. The only condition that I have found very difficult complicating pregnancy is appendicitis; then the uterus seems to take up all the abdomen and it is difficult to get the appendix out.

DR. W. B. CHASE: Dr. Baldwin has given us a digest, which might occupy a good deal of time in considering the various questions. There is very much in Dr. Baldwin's experience that is interesting and instructive.

At the present day we have much less dread of old pelvic abscesses than we used to, on account of the practical immunity which the patient bears, even though the peritoneum becomes soiled, and it is a recognition of this fact that I attribute very much of his success. I have seen him open abscesses of that kind and drain them through a large piece of gauze twisted in through the abdominal wall, almost as big as my wrist, and yet the facility with which the patients recovered was remarkable. The fact that when the peritoneum has become soiled by old pus, it can be washed clean and the abdomen closed is certainly an advance on the old method—the feeling that in all cases of pus in the peritoneal cavity we must drain.

I am very much interested in the experience of Dr. Baldwin in the after treatment of cases of pelvic operation by abdominal incision, and the necessity of early movement of the bowels afterward. Dr. Baldwin is entirely correct. My experience is this: that my patients suffer more from the discomfort arising from the accumulation of gas in the intestine after abdominal operation than from all other things combined. Even if you prepare the intestines carefully before the operation, yet in the majority of cases there will be gas accumulate after the operation, and accordingly as it accumulates is the discomfort of your patient, and the sooner you can rid the pa-

tient of the gas and get the bowels to move the better. I think very many patients have been sacrificed by allowing the bowels to be locked up five days.

Dr. Baldwin did not tell us regarding his method as to sutures. I infer and feel confident that in all these cases he has left no buried unabsorbable sutures. Nothing short of a suture that would last months or years would suit many men, even though the object of the ligature would be accomplished in the course of a day or a few hours. I am sure as to what the Doctor's answer will be as to unabsorbable sutures, and I think his experience will be valuable not to put patients in jeopardy by articles of doubtful advantage.

DR. H. C. KEENAN: The former speakers have so well threshed over the ground, that they have left very little for me to say. All I can do is to repeat the expressions of appreciation, which the other gentlemen have already stated.

However, there are two or three points which I should like to speak about. First, is opening the pelvic abscesses. Whether I do not make a large enough opening, I do not know, (I believe I do) but I have known a number of cases where after leaving the gauze in for a couple of days the patient experiences a rise of temperature. When they are put on the table and the gauze is pulled out there is often a gush of pus. It looks to me as though the meshes of the gauze become clogged up and act as a cork, so that I have removed the gauze in two or three days. It is, however, very difficult to reinsert it and it is painful to the patient, and I would like to know from Dr. Baldwin if he gets drainage after the third day.

There was another point I was glad to hear him speak about. He came out boldly and said he put the needle through the skin from without in. Time and time again I have seen needles used through and through the skin, taking the tissues from the peritoneum to the skin and the same needles used from the peritoneum to the skin again, under the delusion that the needles were as sterile as used in the first instance.

Another point I would like to speak about is the use of morphine. I had quite a good deal of experience during the summer in this matter. A small amount was given the first evening. The next twenty-four hours the patients would be in very good condition, but during the second twenty-four hours they would be considerably worse than if they had no morphine at all. I think also it would be quieting to the bowel and would predispose to the formation of adhesions.

DR. A. C. BRUSH: Mr. President, I feel that I am rather out of my line in speaking before a gynecological society, but with regards to the coccyx Dr. Baldwin's paper brings this subject to my mind forcibly. Injuries to this little bone are a thing that can cause considerable trouble, and when the trouble is a local one, might be easily mistaken for the well known coccyxageal pains found in hysteria and neurasthenia.

The coccyx from its anatomical relations is of more importance than we think at first glance. Spreading over its posterior surface we have in its fibrous covering a mass of connective tissue, blood-vessels and nerves descending from the spinal cord through the open spinal canal. We are dealing then with a sensitive little organ, injury or disease of which can cause pain reflected all the way up the spinal cord and thus to every nerve in the body. I think we have all seen an immense amount of disturbance from small injuries to the part. I remember one case operated on for me by Drs. Polak and Butler where the removal of this small bone was followed by an immense amount of relief to the patient.

There is another point in operating on this part of the spine in hysterical patients: it is a question how much actual good the operation does and how much is accomplished by suggestion. In true disease of this bone there can be no question that it is better out of the way than in the patient's body.

DR. C. P. GILDERSLEEVE: I did not hear Dr. Baldwin's paper, and even if I had heard it I would not consider myself competent to discuss it, so far as procidentia is concerned, but I infer from the nature of the discussion that Dr. Baldwin advocated gauze drainage, and I also infer that there are others who believe that there is other drainage better than gauze.

We all know that no drainage is perfect, we all know that all drainage is decidedly imperfect, but my experience is that there is no material that as satisfactorily drains as thoroughly and safely as gauze drainage properly introduced. When I say properly introduced, I do not mean to pack in a lot of gauze indiscriminately as tight as you can get it, but to take a strip of gauze and twist it properly and be sure it goes down to the bottom of the cavity. I am positive that it is a great mistake to take the drain out as a rule two days after the operation. You take in those cases operated on for appendicitis with pus sac, you are dealing with a large cavity and comparatively delicate structures. You have got your incision through the abdominal wall, in which you hope

to get some primary union, and there is no doubt in my mind that if you take out the gauze drain before the second day, you are bound to interfere with your wound, and you are taking a chance when you reintroduce it to force it through the wall. At the end of four or five days you are not dealing with nearly as dangerous a surface as on the first or second day.

It is perfectly true, as Dr. Corcoran says, that when you withdraw this wedge some pus runs out. It is equally true if you use a glass tube, which is more adapted for a lamp chimney than a drainage tube, the pus stays in there. That is certainly not good drainage.

Dr. Keenan spoke of morphine. I do not know what Dr. Baldwin said. I do not believe he said to give morphine day after day. After any operation of that sort there is a certain amount of nervous disturbance and restlessness, which nothing will quiet except morphine, and as a rule you do not need it after twenty-four hours.

Dr. Brush spoke of the coccyx being so sensitive. I do not believe that. I do not know of any part of the anatomy which gets subjected to moderate violence more often than the coccyx, and I have never heard of any serious results from moderate violence to that part except in medico-legal cases, admitting, of course, that the bone can be bruised or broken exactly as any other bone if violence of sufficient force is applied.

DR. J. F. TODD: I presume it is permissible for the assistant of a gentleman to be rather enthusiastic in the work of his chief. When a student, and after graduation, when I had the honor of being associated with one of our late lamented professors of Gynecology, I was led to believe that complete procidentia was a most hopeless condition; that the arts of the surgeon whether by means of plastic operation alone or supplemented by abdominal section, were well nigh useless in the great majority of cases.

I presume in a young woman, one in whom the condition has only existed for a short time, a simple perineorrhaphy combined with a suspension of some sort will restore the uterus to its normal plane; but take the average case of a woman four or five years beyond the menopause, the uterus completely prolapsed and outside the vulva for six or seven years, this lady is in no condition to stand an abdominal operation.

The usual operation on the posterior vaginal wall and perineum will certainly be useless, but combine with these the anterior operation as spoken of by Dr. Baldwin, and the uterus will



remain permanently with the vagina and the patient will be cured of her symptoms in the great majority of cases. The operation is devoid of all danger and so successful that I have yet to see a failure, and we have cases attending to their ordinary avocations who have been operated upon for three, four and five years.

Of course, it is necessary to carefully prepare these patients in order that success may be attained.

You cannot suture a vaginal wall that has occupied an unusual position and been exposed to unnatural conditions and expect union. The patient must be confined to bed, the uterus kept in place and the vaginal tissue prepared until it has regained at least some of its original characteristics; then you will be repairing tissue at least partially healthy and the operation will be successful.

DR. L. G. BALDWIN: I want to thank you very kindly for your discussion and the consideration you have given my feeble effort.

I was in hopes Dr. Jacobson would say something about his case in substantiation of his belief, that the septic case was helped, if not cured, by means of the antistreptococcic serum, and also I would liked to have heard some discussion in regard to the use of ergot in cases of sepsis, but we will have to pass without it.

In regard to the treatment of procidentia by plastic operations; there are certain cases undoubtedly of procidentia that have existed for a long time that I do not believe Dr. Emmett could cure, but there are others that I am equally certain can be cured by a plastic operation.

Dr. Todd says he has not seen any of our cases recur. I presume some of the other gentlemen have—that is the way things usually go. We only see our successes, but it is a fact that there are some cases now three to five years after operation who are still well and in good health. Some required a combined abdominal operation.

The operation spoken of by Dr. Polak I have never done or seen it done, but it seems to me that would shorten rather than lengthen the vagina, and it seems to me that is not the way to keep the uterus in a position of anteversion.

In regard to movement of the bowels, regardless of the illustrious Kelly I am firmly convinced that I have saved cases in the last five or six years by getting the bowels open early. I do not believe trouble ever occurs from moving the bowels in the first twenty-four hours. Why take any chances?

I have used nothing but catgut in the abdomen

for a long time—no silk or kangaroo tendon or other material.

In regard to pelvic abscesses, I have opened a good many acute cases, such as Polk described in his paper a few years ago, as well as the more chronic cases, and as a very general rule the gauze was left in seven days. I do not recall now but one case, and that is the case mentioned in this paper, where I removed it before the end of the week, and I was very sorry I did in that case. I removed the gauze at the end of five days, the wound contracted, and I believe it had much to do with her stormy convalescence.

I give morphine, as I said, freely and liberally, but I always have given it in small doses and repeat it according to the necessities of the case. I have had no trouble the second day.

I do not believe that plastic surgery is a lost art. I am glad to know that Dr. Corcoran still uses silver wire, because that is another point that is equally certain in my mind, and that is that silver wire is the best suture material for operations on the cervix.

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## THE BROOKLYN PATHOLOGICAL SOCIETY.

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DECEMBER 10, 1904.

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HENRY G. WEBSTER, M.D., Editor.

(Continued from p. 112.)

X-RAY THERAPY

### *Discussion.*

DR. HALL-BROWN: I have been most interested in what has been said, and I fully agree with the gentlemen with regard to the effects of the X-ray in relieving pain and relieving the most distressing symptoms that are connected with cancer. One gentleman spoke as though he combated the fact or probability of toxæmia taking place. When you see a case of advanced carcinoma under treatment, and the tumor is melting away so rapidly you can almost see it going, and the patient develops nausea, vomiting and severe chills, then you are pretty sure toxæmia is taking place there. That has occurred once in my experience.

I was talking two days ago with two electrotherapists, who have worked enthusiastically in this field of X-ray therapy from the beginning. One of these is still very enthusiastic. He showed me a series of pictures of carcinomas of the breast, where in the beginning of treatment (the case was post-operative and recurrent) the arm was

swollen to the finger tips, there was a hardened mass of tissue extending from the clavicle down over the breast and with a large open slough. After treatment of three months the swelling of the arm, as shown in the photograph taken at that time, had entirely passed away, the slough was healed, and there was no evidence of disease, though, of course, a cicatrix remained. There has been no recurrence.

I was talking with another gentleman who is working as determinedly, and whose technic seems to be as perfect, and he says carcinoma can not be cured by the X-ray, and it is absurd to talk about it. I suppose time will decide the true state of affairs.

One thing was related to me that is rather new, and that is several prominent surgeons in New York say, that in operating after X-ray treatment has been carried on for some time they find that the tissues are not up to the standard of ordinary tissues, that they are very friable, will not heal after operation, and that they will not in many cases even hold sutures.

DR. J. D. SULLIVAN: It occurs to me there is a great difference of opinion as to the results reported by different observers. It appears to me most of them make a most positive distinction between epithelioma and carcinoma. If I remember correctly, Senn in his work on tumors ignores the term epithelioma, and everything that we call epithelioma he puts under the head of carcinoma. I should like to ask some of the pathologists to give us some definite information as to the distinction between the two. There is now a patient in St. Mary's that I sent in six months ago for an epithelioma of the temple. I curetted the ulcer, and Dr. Lee took him under observation, and afterwards Dr. Williams. For a while he improved. The pathologist of the hospital, Dr. Deely, says it is a carcinoma of the skin. If it is a carcinoma, according to the eminent gentlemen who have just spoken, he will not get well. The ulcer has diminished in size, but there is a good deal of infiltration and dermatitis, which may be due to the X-ray.

Another case I have under observation was one in which I made a diagnosis of epithelioma of the tongue. I took out a section under cocaine and sent it over to Dr. Pruden, who says it is an epithelioma of a progressive character. Dr. Lee gave this patient six treatments in the course of three or four weeks. During that time the tumor increased in size, whether due to the X-ray or a natural process of the disease, I do not know. About ten days ago I excised one-third of the

tumor. The tissue was very friable and held the sutures very imperfectly. The results so far are very good, and the only unusual thing about the case was, that he appeared to be very much prostrated for a week after the operation—a prostration that did not appear to be justifiable. There was nothing unusual about the operation; there was not much blood lost. The disease began in August of this year.

This growth is an epithelioma according to Pruden. That epithelioma is entirely excised. Dr. Winfield says that man is going to die with cancer of the tongue, and that is my apprehension, but if it is an epithelioma and I put him under the X-ray, why will he not get well?

DR. J. R. TAYLOR: There is probably no man in New York City who has done more work in regard to the X-ray than Morton, and I have had the pleasure of seeing with him in his office a large number of cases of cancer of the breast and of facial epithelioma. Very many of these cases of epithelioma of the face heal rapidly, especially where they are very superficial, but I recall distinctly a patient whom I saw two years ago at Dr. Morton's office, a lady of 40 years of age, who had been through the hands of some fourteen different practitioners in New York, and the expression of opinion was in all cases, excepting one, until she came to Dr. Morton, that the disease was lupus of the face. There was an ulceration at the left side of the face at the inner angle of the mouth the size of a half dollar. It went down to the muscular tissue, and contained a number of nodules about the floor of it; the margins were indurated. On the occasion of her first visit Dr. Morton asked me to make an examination and give him an opinion. Under cocaine I curetted from the side of the indurated margin and also from the floor of the cavity some nodules and made sections of them.

The microscopical sections presented the typical epithelioma perles, which we find in these cases of surface epithelioma, and the patient under the X-ray went along very nicely for a number of weeks. She was treated twice a week by Dr. Morton, and improved nicely for two or three months. Then the condition became stationary. Dr. Piffard, of New York, is the only one of the fourteen who had seen her who disputed the question of lupus, and Piffard corroborated my statement that the case was one of epithelioma. If the case were one of lupus you would find giant cells and possibly tubercle bacilli in one of the sections. Unquestionably you would not find the epithelial perles.



After the condition became stationary the case was sent back to the family physician, and she afterward passed into the hands of some man who has been treating her with some form of caustic paste, and Dr. Morton informed me she is apparently, now, recovering.

One point in regard to the use of the X-ray, especially in cases of surface cancer, which Morton makes is, that it is of importance now to render the blood more fluorescent by the use of quinine, and in all his cases he saturates the patient up to the point of tolerance on each occasion before giving treatment. His results within the last year since introducing that method have been very much better than previously.

In all cases of cancer of the breast—the scirrhus conditions—which have been referred to as Senn's idea of cancer, Morton invariably insists that the knife shall be used first, if the case is operable, and the X-ray is turned on afterwards. He does not consider the X-ray in these cases as curative, unless the tumor mass is first removed by the knife. He does not advocate the knife after the ray has been used.

DR. H. S. JEWETT: I have been very much interested in the paper of Dr. Lee and also the remarks of the gentlemen here.

As the subject is cancer I recall to mind a case that came under my observation a while ago. The lady came to my office. She had been treated for some uterine trouble and had a good deal of pain. I made an examination and found cauliflower growths on the cervix. I removed some of them with considerable hemorrhage, and sent one of them down to Dr. Van Cott to examine microscopically. He reported a carcinoma of a most malignant type, and said that possibly if the walls were not invaded an operation might be curative.

At this lady's request I took her to Dr. Byrne for consultation and examination. He gave her a thorough examination and said the cancer had not invaded the walls and an operation probably would do good, and I made an arrangement with him to take her to St. Mary's. She was taken there and operated on by him. The uterus was amputated by his electro-cautery operation. She remained in the hospital for several weeks until she was well and then returned to her home. I have had her under observation for four years and she is practically well and has been since.

DR. P. H. MOAK: I should like to ask Dr. Buist if syphilis had been excluded in the case of the old gentleman? These ulcers look specific rather than of a malignant nature.

DR. G. L. BUIST: He has had syphilis, but has not had specific treatment while under the X-ray.

DR. P. H. MOAK: Regarding the definition of epithelioma and carcinoma, it would seem to me that epithelioma is superficial and external and that carcinoma is deeper, and the results from X-ray treatment would seem to be best where the new growth was near or on the surface. What effect it has on metastasis is indefinite as yet. We know that often with the complete Halstead operation for the removal of malignant growths of the breast with removal of the glands, with no recurrence, the patient later may die of metastasis, which had gained headway evidently before operation. In these cases, of course, the X-ray would be of no use.

#### REPORT OF CASE: CARCINOMA OF STOMACH.

BY DR. P. M. PILCHER.

Mrs. S., age 56. May, 1902, was operated for movable kidney right side, good recovery. September 16, 1902, was examined by Dr. Drury, and at that time there was some induration of the anterior wall of the stomach, which could be felt on palpitation. Patient has been suffering from pain in the epigastric region after eating, was treated medically for two months, with no improvement. She next presented herself, February 1, 1903, and was examined by Dr. Drury, who found a tumor occupying the epigastrium, much more prominent than before and nodules. At this time he recommended X-ray treatment, but it was declined. Treated medically until July 6, 1903, when the presence of ascites was first noticed. In the interval between February 1st and July 6th, the patient had been growing steadily worse, rapidly emaciating, and losing strength, so that she could hardly walk. The tumor which occupied the epigastrium was flat and distinctly nodular, measuring about 13 cm. from right to left, and about 10 cm. from above downward. Tender on pressure. Not moveable. No ascites. It was not continuous with the liver. Patient suffered from eructation of gas after eating, inability to retain solid food. Pain in the epigastrium independent of taking food. Marked weakness and cachexia.

July 11, 1903, was examined by Dr. Fuhs. At this time the ascites was well developed and obscured the abdominal examination. Examination of stomach contents after test meal showed an increase in the amount of mucus, presence of HCl., solids were broken up. His opinion at that time was that the case was probably one of carcinoma of the wall of the stomach, not involving the mucous membrane. Mesentery probably involved.

July 30th, the abdomen was tapped and nine

quarts of amber-colored serous fluid were withdrawn. X-ray treatment was started by Dr. Buist at the Brooklyn Hospital. Three treatments of fifteen minutes each were given every week.

August 30th, the abdomen was again tapped and eight quarts of fluid were withdrawn. About September 1st the patient's condition began to improve, there was less pain, and patient felt stronger.

September 15th she presented herself at the Seney Hospital for treatment. The abdomen was somewhat distended with fluid which made an abdominal examination impracticable. Fifteen minute treatments were given three times a week. There was a gradual but progressive improvement. October 22d, abdomen tapped. Only three quarts were removed. Patient at times complained of severe pain in the right thigh from the hip to the knee. This pain seemed worse after treatments and occasionally the treatments were omitted on this account.

Since October 22d the improvement has been more marked. Can now take fluids and gruels of all kinds without pain or vomiting. On Thanksgiving Day the patient ate turkey, onions, and cranberry sauce without discomfort, but was advised not to eat solid food regularly.

December 10, 1903: Examination by Dr. Drury, General condition wonderfully improved. Has gained eight pounds in weight since September 1st. There is no free fluid in abdominal cavity. Very little tympanites. Enjoys her meals. No eructations of gas. Patient feels entirely well. Can walk long distances.

Abdominal tumor is markedly decreased in size, especially in the antero-posterior diameter. It extends a little lower than in July, and just above the umbilicus a freely movable nodule is felt. Very little tenderness. Induration follows the greater curvature of the stomach. Liver quite distinct from tumor.

This case illustrates very well the therapeutic value of the X-ray in certain inoperable cases of carcinoma. The diagnosis of carcinoma of the stomach could not be absolutely established, but clinically was pronounced as such by Drs. Drury, Fuhs, Fowler, and Buist. Whatever the condition is, it was considered inoperable and the X-ray treatment was taken as a last resort. No promises, even of improvement, were made, but the result has been very satisfactory. The patient now feels well and enjoys her daily life.

I present this case as an example of a series of cases which may come within the limitations of X-ray therapy.

DR. J. C. MACEVITT: It is slightly foreign to

the subject of X-ray therapy to speak of Dr. Byrne's operation, but since the operation was mentioned by Dr. Jewett, I feel I am justified in doing so.

I was associated with Dr. Byrne in all his battery work. His operation has not been supplanted by either the knife or the X-ray. Men eminent in the profession to-day are now recognizing the efficacy and worth of Byrne's operation. The Doctor always maintained that there was something more than the absolute cautery; there was something that went beyond; he could not explain it, he was unable to explain his statistics, and yet his statistics were true and honest.

The case referred to by Dr. Jewett just a few minutes ago, recalls to me a case that I saw but a few weeks ago, that I had personally known of that was operated on in St. Mary's Hospital for carcinoma of the cervix.

Dr. Jewett asked if the microscope tells the truth. It does sometimes and most of the time. Byrne did not submit these cases to which I now refer to the microscope, but his eye and his touch were sufficient. He diagnosed it as carcinoma, he operated on it as carcinoma, the records state it was operated on as carcinoma, and a few weeks ago the remains of the uterus he left were carcinomatous, and the woman died of carcinoma. All through his work he failed to use the microscope, and those who combated the usefulness of his statistics claimed that Byrne did not submit his cases to the microscope, hence he produced cures of supposed cancer, but yet this instance I relate and the one Dr. Jewett relates confirm the wisdom of Byrne and his operation.

DR. J. A. LEE: I do not know that I can add much of importance to the subject. The discussion has been remarkably full to-night and pleasing to me. If there is one thing I would like to have decided it is what we can and can not do, as I have been endeavoring since taking up X-ray work. I have been endeavoring to bring out honest results. If the X-rays can do nothing at all, let us discard them entirely, but when we are discussing the actions of the X-rays and placing against them the results of surgery, we oftentimes fail to see and consider the surgical results beyond the immediate time of the operation itself. That is the important point. The statistics of the most famous operators, taken as they are from selected cases, will oftentimes in breast cancer show as high a percentage in suitable cases as 20 per cent., but these cases are selected cases, and as I said before the cases are probably taken directly after operation.

In regard to the point that Dr. Bierwirth



brought out about malignancy, that same point I mentioned in the paper that I read a year ago. I drew an analogy between the characteristics which are evidenced in carcinoma of the different forms and in tuberculosis. We have the same wide diversity of conditions and the same wide diversity of diseases, we have the same degree of malignancy. We have our acute conditions, which in the face of almost any treatment your patient is going to rapidly die. That same thing is present in carcinoma. It makes no difference whether you operate as soon as the case is diagnosed or not, the patient is going to die in these very malignant cases.

On Dr. Bristow's service at the King's County Hospital I treated a case of recurrent breast cancer that was operated on about three weeks before I took hold of it. At that time there was a large extensive cauliflower mass, which broke down in three weeks. Previous to operation the disease had only lasted two months. The patient died a month afterwards. These extreme types of malignancy in carcinoma can not be cured by any form of treatment, and that is why in making deductions and drawing conclusions, as Dr. Bierwirth says, it is exceedingly difficult for one man to draw conclusions from his cases and another man from cases, which while they have the same name are different in their action and clinical results.

In regard to the question of Dr. Henry about the X-ray in leprosy, I believe it is being tried in the leper colony of Hawaii, but I cannot speak of the results.

Dr. Pilcher's case is a very remarkable result. Even if the case should finally die, he has accomplished a great deal. At the same time we must remember that there are these slow growing forms of internal cancer that for a long time will exist in the body without producing death. I myself had a case die last spring, in which I had attempted to remove a carcinoma of the descending colon one and a half years previously. The carcinoma was so extensive that it was thoroughly impossible to attempt to enucleate it, and we did nothing more or less than to do an exploratory laparotomy. He was able to get around a year afterward and died after a year and a half.

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#### BROOKLYN MEDICAL SOCIETY.

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The Eighty-Eighth Regular Meeting of the Brooklyn Medical Society was held on the evening of Friday, December 18, 1903.

The President, DR. A. T. BRISTOW, in the chair.

Minutes of previous meeting read and adopted.

Applications for membership:

Dr. Herbert Dixon, 141 Lewis Ave.; Dr. Rudolf Herriman, Bushwick Hospital; Dr. P. J. Murray, 815 Willoughby Ave.; Dr. John A. Quell, St. Mary's Hospital.

Admissions to membership:

Drs. C. C. Dieckman, M. T. Rauh, C. W. Brown, Myles Purvis, P. H. Keeler.

Report of Membership Committee on resignations of Drs. Braislin and Maddock received and placed on file.

#### CLINICAL SECTION.

DR. STEPHEN LUTZ, Chairman.

DR. CHARLES HETTESHEIMER read a report of a Case of Cervico-vaginal Adhesion, and also presented two X-ray pictures of a Case of Dislocation of the Elbow Joint.

DR. JOHN D. SULLIVAN then read a very interesting report of a case of Carcinoma of the Tongue, and exhibited the excised specimen. He said that the case was that of a man of 50 years born in the U. S. Sister had died of tuberculosis. Patient had evidences of syphilis when he nineteen years old, having had a chancre. Was a moderate smoker. To the doctor's knowledge he had leucoplakia lingualis for the past ten years. In August, 1903, a small nodule or growth first appeared on tongue about one inch from tip and midway between centre and left border of tongue, which steadily increased in size up to the time of operation; was elevated a quarter of an inch and occupied full thickness of tongue. One month before removal began to ulcerate, having quite a depressed ulcer in the centre; was firm in consistency and moderately painful. Six X-ray treatments by Dr. Lee of St. Mary's Hospital gave no appreciable relief.

A few lymphatic nodes were on the left side of the neck, immediately under the inferior maxilla before, but entirely disappeared after the operation. Patient suffered from anorexia and sleepless nights and general health failed.

Under anaesthesia, November 27, 1903, this specimen and two and a half inches of tongue were excised by V-shaped incisions. Suturing of lateral borders of wound left remaining portion of tongue in good shape, completely controlling hemorrhage. Had painful deglutition for a few days, due to swelling of floor of mouth, and used stomach tube to avoid distress in swallowing, consisting of a soft rubber catheter attached to a piece of rubber tubing and a glass

funnel. This was passed through nostrils into cesophagus, and proved a very convenient method of feeding.

At present the wound is almost entirely healed. Patient eats and drinks well, is free from pain, sleeps well and general health is improving. Speaks quite distinctly and mind is cheerful.

DR. SULLIVAN then read a letter from Dr. T. M. Prudden of Columbia University, who said that the anatomical diagnosis was "Epithelioma with deep infiltration of the tissue of the tongue." Dr. Sullivan commented on the use of the term "Epithelioma" by Dr. Prudden and said that with all due deference to him he had used the term "Carcinoma" because of the confusion that the term "Epithelioma" had brought about, some authors describing it as benign while others as a malignant tumor of the skin or mucous membrane. Dr. Senn says that the term "epithelioma" should be abolished from the nomenclature of tumors. Histology teaches us that all carcinomatous tumors are composed of epithelial cells and an alveolated stroma of connective tissue. The majority of authors describe several varieties of carcinomata: viz., Epithelioma, Scirrhous, Encephaloid, Colloid, and Glandular, but these differ only in their structure from their location, the type of cells or the kind and degree of degeneration of the tumor tissue; the general plan of their histological structure being the same. Hence Dr. Prudden emphasized his findings as the anatomical diagnosis being epithelioma with deep infiltration into the muscular tissue.

DR. E. ARTHUR PARKER read a report of three consecutive cases of Tetanus treated with the tetanus antitoxine and also exhibited the patients. He began by giving some mortality statistics. During the Civil War, of 505 cases it was 89.3 per cent.; in recent publications cases treated with antitoxine and otherwise 54.6 per cent.; in Virginia of 21 cases due to blank cartridge wounds treated with antitoxine and drugs 20 died.

One of the cases of the doctor's was injured by an umbrella wire sticking in the heel while playing in a lot where a horse had died of tetanus. A second case was due to a blank cartridge wound in 1903 (July). The third case occurred in October, 1903. All had risus sardonicus. Convulsions from slight noises, attempts at swallowing, or any voluntary muscular action. They had fever and sweat following the convulsions. All had episthotonos. The wounds were cleaned and soaked in tincture of iodine. All were given an initial dose of antitoxine (20 c.c.), 1 c.c. of serum having the power to protect one million

grammes of guinea pigs in weight from a fatal dose of tetanus antitoxine. 10 c.c. were then given every four hours until patients had each received 220 c.c. They were also given one drachm of the peptonate of iron and manganese every four hours, and six ounces of nutrient enemata until food could be taken by the mouth. The stomach tube was used under anaesthesia when rectum became intolerant. Abundance of water was given. Also an occasional dose of morphine and chloral was required to control restlessness at night.

He then presented the boys all healthy and well.

*Program* "The Sanatorium Treatment of Consumption in Special Institutions and at Home," Dr. S. A. Kopf, of Manhattan.

This was discussed by Dr. G. A. Evans.

HUGH EDWARD ROGERS, M.D.,  
*Rec. Secy.*

The Eighty-Ninth Regular Monthly and Tenth Annual Meeting of the Brooklyn Medical Society was held on the evening of Friday, January 15, 1904.

The President, DR. ALGERNON T. BRISTOW, in the chair.

Minutes of previous meeting read and adopted.  
Application for membership:

Dr. Charles Gartner, 774 Bushwick Ave., Albany Med. '95.

Admissions to membership:

Drs. H. S. Dixon, P. J. Murray, R. F. Herri-man, J. A. Quell.

Reports of Officers for the year 1903:

DR. H. E. ROGERS, the Recording Secretary, briefly told of the prosperous year 1903 had been for the society.

DR. ALFRED BELL, the Corresponding Secretary, read a report in which he showed that the society had 221 active and one honorary member, a total of 222. That 28 new members were elected in the year 1903. That there were only five resignations. That death had claimed two of our members, Dr. John L. Waldie and Dr. Frank W. Shaw. He congratulated Dr. Peter Scott on the excellent manner in which he handled the finances of the society, and thanked the chairmen of the different clinical sections for their promptitude.

DR. LEWIS E. MEEKER, the Librarian, reported the library in very excellent condition and said that the library had been increased by the addition of two rare volumes.

DR. PETER SCOTT reported the society in a sound financial condition, showing a balance in



the bank of \$414. He gave an itemized account of the receipts and expenditures of the society for the year.

DR. R. W. WESTBROOK, Chairman of the Committee on Scientific Papers, said that he was well satisfied with the manner in which the scientific business of the society had been carried out during the year 1903. He commented on the general excellence of the papers read and congratulated the members on having had so many men eminent in the profession address the meetings.

DR. ALFRED E. SHIPLEY, Chairman of the Membership Committee, reiterated what Dr. Bell had said about the society having a membership of 222, and that a gain had been made during the year of 28 new members. Of these new members he read a list of names which included some of the most prominent practitioners from all sections of the city.

DR. WILLIAM SCHROEDER, Chairman of the Historical Committee, reported the deaths and read the life histories of those members who had died during the year 1903. Among these he mentioned Dr. John Frederick Golding, Dr. George Chappell Crawford, and Dr. John Lyal Henry Waldie.

He then read a short history of the society, and among other things said that the society was organized December 28, 1894. That during the ten years of its existence 294 names had been presented for membership and that 68 had been dropped. He said that would make a total of 226. During 1903 30 names had been presented, four being under consideration.

He commented on the success of the second annual banquet held at the Bushwick Club, March 5, 1903, and said that the gathering was representative and full of promise for the future.

He mentioned the fact that Dr. Algernon T. Bristow, our President, was also President of the New York State Medical Society. That Dr. R. C. F. Coombs was President of the Society for Neurology for the year 1903, and that Dr. R. M. Elliott had been elected for the year 1904. That Dr. Frederick Weisbred was President of the Verein Deutscher Aertze von Brooklyn, and that Dr. John H. Droge was President of the German Medical Society. That J. M. Winfield was President of the Brooklyn Dermatological Society, and that Dr. W. E. Butler was President of the Brooklyn Gynecological Society.

The following officers were elected for the year 1904:

President: Dr. William B. Brader.  
Vice-President: Dr. R. W. Westbrook.  
Recording Secretary: Dr. H. E. Rogers.

Corresponding Secretary: Dr. Alfred Bell.

Treasurer: Dr. Peter Scott.

Librarian: Dr. Lewis E. Meeker.

Trustees: Dr. A. T. Bristow, Dr. E. A. Hatch, Dr. J. W. Ingalls.

Membership Committee: Dr. A. E. Shipley, Dr. William Schroeder, Dr. Charles Peterman, Dr. W. H. Snyder, Dr. W. T. Allen.

The Auditing Committee reported that they had audited the Treasurer's accounts and found them correct.

A motion was made, seconded and carried that the Corresponding Secretary be allowed \$25 for expenses for the year 1904.

Motion was made, seconded and carried that the Chairman of the Board of Trustees be empowered to withdraw \$300 from the funds of the society to be put aside as a separate account which shall be known as the Building Fund of the Brooklyn Medical Society.

A vote of thanks was tendered to each and all of the officers for work done during the year 1903.

Motion was made, seconded and carried that 2,000 proposition blanks be furnished the Corresponding Secretary by the society and that he send out three blanks to each member when sending out notices of meetings.

Motion was made and carried that a vote of thanks be extended to Dr. William Schroeder for the copy of the biographies of the members of the society which he had presented.

The incoming President, DR. W. B. BRADER, was then introduced. In a few well chosen words he thanked the members for the honor they had conferred on him and said that it would be his pleasure and his duty to continue the good work done by his predecessors, and that he would put forth every effort to make his term of office a most successful one.

DR. A. T. BRISTOW, the retiring President, then said that his term of office had been a most pleasant one, and thanked the members for the hearty support they had given him and wished the B. M. S. all kinds of luck and success.

Because of the fact that Dr. Bristow was also President of the New York State Medical Society the members considered that they had been especially honored, and tendered the Doctor a rising vote of thanks, to which he modestly bowed his acknowledgments.

A motion was made, seconded and carried that 500 new copies of the By-Laws be printed and distributed among the members.

HUGH EDWARD ROGERS, M.D.,  
Recording Secretary.

## Brooklyn Medical Journal.

All communications, books for review, articles for publication, and exchanges should be addressed BROOKLYN MEDICAL JOURNAL, Library of the Medical Society of the County of Kings, 1313 Bedford Avenue, Borough of Brooklyn, New York.

Authors desiring Reprints of their papers should state on the galley proof the number of Reprints desired.

Each contributor of an Original Article will receive five copies of the JOURNAL containing his article, on application at the Library of the Society, 1313 Bedford Avenue.

A limited number of black and white drawings to illustrate papers will be reproduced by the JOURNAL free of charge. Electrotypes will be furnished at cost.

Alterations of the proof will be charged to authors at the rate of sixty cents an hour, this being the printers' charge to the JOURNAL.

*Entered at Brooklyn, N. Y., post office as second-class matter.*

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BROOKLYN-NEW YORK, APRIL, 1904.

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### ADEQUACY OF BROOKLYN WATER SUPPLY.

Nothing more directly concerns the health of the inhabitants of this city than its water supply. The question of water supply has been most recently discussed in Brooklyn in connection with its ability to supply water in abundance for fire purposes; and in view of the present somewhat doubtful amplitude of the water supply in the business and dry goods portion of the city, the question of supplying these districts with specially constructed salt water mains to tap the abundant supply on our water front, has properly come up.

A recent report from the chief engineer of the Water Department, Mr. De Verona, elucidates somewhat the question of the needs of the city in respect to its present fresh water supply. From this report it is reassuring to learn that there is no inadequacy of the supply of water at the distributing reservoirs, even under extraordinary conditions of need.

An inadequacy exists, however, in that the distributing mains are not suitably proportioned and that the street hydrants are not sufficiently numerous. These conditions have been known to exist and have been allowed to remain only through lack of money appropriation.

These difficulties seem in a fair way of being overcome and contracts have already been awarded for replacing old, tuberculated mains with new ones of larger size. It is also within Mr. De Verona's plans to add large mains to those already in existence and to replace defective hydrants, as well as adding some eighteen hundred new ones. With sufficient appropriation, which will doubtless be forthcoming, these very important improvements will be completed in about two years. The health of the city cannot

but be favorably affected by measures directed to the increased greater supply. The tenements especially will be directly profited by them.

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### THE BROOKLYN EYE AND EAR HOSPITAL REPORT

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The Thirty-fifth Annual Report of the Directors of the Brooklyn Eye and Ear Hospital has just been issued. The number of new patients, who applied during the year, is 16,242, an increase over the previous year of 1,066.

The usefulness of this hospital is demonstrated daily in the crowds of very poor who receive special treatment at the hands of those in attendance. It would be useless to aim to demonstrate the actual return in money value to the city corporation of the work done here. For example, we notice the record for the year of over one hundred cataract operations, nearly all of which resulted in the restoration of sight to poor, working people. We emphasize at this time the public usefulness of the Eye and Ear Hospital because additional funds will soon be urgently demanded to carry on its increasing work. It is, therefore, not out of place to repeat here the following abstract from the report of the Directors: "Here is a great opportunity for some one with large wreath, a broad, public spirit and a philanthropic soul, to honor the city and erect a living, permanent monument to himself."

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### STANDARDIZATION OF CLINICAL THERMOMETERS

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The Bureau of Standards, established by an Act of Congress in 1901, is authorized among other things to test clinical thermometers. A large number of these, of various manufacture and types, have been examined. Experiments disclosed the fact that discrepancies in the temperatures indicated by thermometers of different makers existed. The scale of those most commonly used was found about 0.2° F. high. Manufacturers have in every case been most ready to accept the Government scale and have rectified their work accordingly.

The Government Bureau of Standards is, therefore, to be given credit for having been instrumental in introducing into the manufacture of clinical thermometers a uniform scale of temperature. The errors, while perhaps in no case of marked degree, are nevertheless of extreme importance when applied to instruments of such vital importance in the labors of the physician.



## MEDICAL NEWS.

EDITED BY CLARENCE REGINALD HYDE, M.D.

*It is earnestly hoped that all members of the profession possessing news concerning themselves or their friends, which would interest others, will communicate the same to the News Editor before the 9th of each month. Items for this department should be sent promptly to Clarence Reginald Hyde, M.D., 126 Joralemon Street.*

Dr. Stephen L. Taylor, of 644 St. Mark's Avenue, and Dr. Charles H. Goodrich, of 280 Park Place, have been appointed visiting physicians to the Brooklyn City Orphan Asylum.

Dr. Thomas Addis Emmet, the eminent gynecologist, recently celebrated his golden wedding at his residence, 81 Madison Avenue, Manhattan.

A fair, under the auspices of the Swedish Hospital Society, of Brooklyn, is soon to be held. If the receipts meet expectations, the foundations for the new proposed Swedish Hospital will be laid some time in May of this year.

Drs. F. H. Clarke, Frank Everson, and William F. Campbell have been appointed a committee by the Bushwick Hospital Association to ask for contributions for a building fund. This committee intends sending out thousands of envelopes in which the recipients will be asked to place a dollar.

The New York Orthopedic Hospital, in East 59th Street, Manhattan, has, through the benefaction of Miss Emily A. Watson, received \$100,000 to establish a branch hospital at White Plains, N. Y. This will be both a home for convalescent crippled children and a school for their industrial education. Miss Watson, who is a member of the Hospital Board of Supervisors, will endow the new home with a fund of \$250,000.

This month chronicles the death of Dr. Stanley G. Clarke, of 694 Halsey Street. Dr. Clarke was graduated from the University of New York in 1868, and was a member of the Kings County and Brooklyn Medical Societies.

Four hundred physicians and surgeons from all parts of the country testified to the esteem of Dr. D. B. St. John Roosa, president of the Post Graduate Hospital, at a complimentary dinner tendered him at Delmonico's. Dr. William Osler, of Johns Hopkins, presided, and paid a glowing tribute to Dr. Roosa, who founded the first institution for post graduate medical instruction in this country twenty-one years ago. The diners

were said to comprise the most representative gathering of medical men ever held in this city. They all cheered when the Rev. Dr. Vincent, Chaplain of the Post Graduate Hospital, presented a loving cup to Dr. Roosa. The after-dinner speakers included Dr. Blake, of Boston; Dr. William W. Keen, of Philadelphia, and Dr. William Polk, of Manhattan.

Dr. O. A. Gordon, Treasurer of the Society, requests the following announcement: "Through a clerical error, the name of Dr. E. J. Carolan, of 946 Bedford Avenue, was omitted from the annual printed list of members of the Society, published last month as a supplement to the JOURNAL."

The subscribers to "American Gynecology" have been notified that the January number was destroyed in the Baltimore fire, and that its appearance will be delayed until steps are taken to determine the future course of the JOURNAL.

The appearance of a daily medical journal in the field will be watched with interest. The idea is radical. The "Daily Medical" emphasizes the fact that "the physician should be as promptly supplied with the latest medical results, through a medical channel, as the attorney is apprised of court decisions and judicial opinions." This journal intends to present "original articles and clinical reports of importance," "to abstract the foreign and American medical literature of moment," and print "translations of important foreign articles." New books will be reviewed and new instruments described. The paper will be under the management of Dr. Martin W. Curran, L. I. C. H., 1896.

The new Mount Sinai Hospital, on Fifth Avenue, Manhattan, is the largest hospital in Greater New York, with over 500 beds. It is built on the pavilion style, with connecting covered corridors. On the opening night, March 16, the crowd was so large that the police reserves had to be summoned to keep order.

Examinations for positions on the house staff of St. Mary's Hospital will occur April 16th. This is a competitive examination, open to students of all medical schools. For particulars, apply to Dr. John C. McEwitt, 407 Clinton Street.

In Greater New York, for the past year, there were 94,755 births, 67,864 deaths, and 37,164 marriages. There were 9,714 deaths from pneumonia, 8,019 from consumption; 653 from typhoid; 2,190 from croup and diphtheria, and 5,636 from nephritis. Of all the deaths, 22,044 were children under five years of age, of which 12,529 died in Manhattan and 7,068 in Brooklyn.

The Summer Session of the Long Island College Hospital has been discontinued, on account of the prolongation of the regular Session to June.

Dr. Fred'k Peterson has resigned from the position which he has held for many years as President of the State Commission in Lunacy.

A biography of the late William Pepper, M.D., LL.D., by Francis Newton Thorpe, has appeared from the press of the J. B. Lippincott Company, Philadelphia.

A Conference of the United Garment Workers of America was recently held at the Educational Alliance on East Broadway, Manhattan, to consider ways and means of preventing tuberculosis. Addresses were delivered by Dr. A. Jacobi, Dr. David Blaustein, Joseph Barondess and Paul Kennaday, Secretary of the Committee on Conventions on Tuberculosis of the Charity Organization Society.

On the return of Dr. Robert Koch from South Africa, where he has been for several months investigating the malarial coast fevers, a celebration intended for his sixtieth birthday, which occurred December 11, last, will be held at Berlin.

The United States Navy is seeking additional men for the service. Examinations will shortly be held at the Brooklyn Navy Yard for candidates to fill vacant positions.

## BOOK REVIEWS.

A NON-SURGICAL TREATISE ON DISEASES OF THE PROSTATE GLAND AND ADNEXA. By George Whitfield Overall, A.B., M.D. Chicago, Marsh & Grant Co., [1904]. 207, x pp. 12mo. Cloth.

Chronic prostatitis and senile hypertrophy of the prostate are probably the most difficult and obstinate diseases which the genito-urinary surgeon is called upon to treat.

We congratulate the author on the very brilliant results which he reports as having been obtained by his peculiar methods of treatment, but we believe that his observations will require to be more generally confirmed before his electro-therapeutic treatment of prostatic diseases becomes widely adopted.

H. H. MORTON.

MICROSCOPY AND BACTERIOLOGY. A Manual for Students and Practitioners. By P. E. Archinard, A.M., M.D. Phila. and N. Y., Lea Bros. & Co., 1903. 210 pp., 6 col. pl. 12mo. Price: Cloth, \$1.00. [*The Medical Epitome Series.*]

It cannot be expected that a work of 200 pages can be a text book, a work of reference, or a laboratory guide, but Dr. Archinard has brought out the essentials of Bacteriology in a way that cannot help being useful to the student of Medicine or Dentistry, or to the practitioner who desires to get at the pith of the subject without consulting a more exhaustive treatise. It is to be regretted that this work tends to perpetuate a classification of the Bacteria which is rapidly being

abandoned by bacteriologists; but the use of the newer classification of Migula or Chester would hardly be possible in a work of this size. The illustrations, mostly from Abbott, are well chosen and well reproduced, and serve to fully illustrate the text. Altogether, the work is a valuable one, and will undoubtedly command a large sale.

E. H. W.

PRACTICAL GYNECOLOGY. A Comprehensive Text-Book for Students and Physicians. By E. E. Montgomery, M.D., LL.D. *Second Revised Edition.* Phil., P. Blakiston's Son & Co., 1903. xxxiii, 17-900 pp. 8vo. Price: Cloth, \$5.00.

This recent work is one of the best text books for students' use that has come to our notice. The different divisions are arranged connectedly for the student's benefit, while there are five hundred and thirty-nine illustrations, many of them new, most of them from the author's practice, and all well drawn. The chapter on Myomata is extensive, the author aiming to describe all the best methods of dealing with this class of tumors by both routes. Later operative procedures are specifically treated, especially those of the ovary, fallopian tube, and cancerous growths. Under "Traumatism" are described the lesions of parturition. The usefulness of this second edition has been much increased, so that it stands for what its author claims, "a comprehensive work."

CLARENCE R. HYDE.

COMPEND OF GYNECOLOGY. By William H. Wells, M.D. *Third Edition, Revised, Enlarged.* Phil., P. Blakiston's Son & Co., 1903. xv, 17-295 pp. 12mo. Price: Cloth, \$0.80. [*Quiz Compend, No. 7.*]

It is a mooted question whether Quiz-Compend is to accomplish more harm than good, to those students who persist in their use. Such compilations would appear to exemplify the old adage that "a little knowledge is a dangerous thing." They are condensed editions of special subjects, but unfortunately, sometimes, the best material is so condensed that it is a mere epitome and not of worth to the student. At their best, quiz-compend are dangerous adjuncts to a course of study, when examinations are near.

In this particular compend the usual style is followed out. A few articles are open to criticism. For instance, the author declaims against the use of tents and yet devotes two pages to the different kinds and the technic of their employment. As tents have been discarded by the best gynecologists as dangerous and obsolete, why burden the student's mind with ancient history? The Emmet operation for anterior colporrhaphy is incorrectly described, although the description was taken from the American Text-Book of Gynecology.

In describing supra-vaginal amputation of the uterus by the abdominal route, the author produces Hegar's method of extra-peritoneal attachment of the stump to the lower angle of the abdominal incision. In view of the brilliant operative technic devised by American surgeons, notably Baer, Kelly, Reed, Pryor and others, such unnecessary introduction of methods abandoned long ago by our best operators calls for a halt. It is unjust to the student to fill his mind with the unnecessary. With so many excellent text-books on the market, we believe the teacher should discourage the use of compends. They are an incentive to laziness, and never stimulate the student to follow out a course of instructive collateral reading from modern and accepted authors.

CLARENCE R. HYDE.



# BROOKLYN MEDICAL JOURNAL

VOL. XVIII.

BROOKLYN-NEW YORK, MAY, 1904.

No 5.

## ORIGINAL ARTICLES.

### CEREBRO-SPINAL MENINGITIS IN BROOKLYN.\*

BY WILLIAM BROWNING, M.D.,

Prof. of Neurology at the Long Island College Hospital.

Besides the occurrence of distinct epidemics of cerebro-spinal meningitis, it is well known that sporadic cases are observed and that in many localities, these are so frequent as to give it an endemic character. This fact has been established in this country largely by the well-known report of the Massachusetts Board of Health of 1898. But there are many communities where this has not been specifically demonstrated, and probably in none is its importance fully realized.

It is my purpose simply to put on record a limited number of personal observations, with a discussion of certain points, and collect any further references to its occurrence in Brooklyn.

The few cases of which some details will be given were seen in private practice, one being subsequently removed to hospital for operation. So far as my observation goes, such cases are but rarely brought to our hospitals—although possibly turned into some other than the nerve-service.

Evidently the germ is widely and continuously present here in Brooklyn, and the possibility of an epidemic always with us, should the unknown favoring conditions arise.

The first two cases are given because they occurred at the same time in the same family, and as in one the presence of what is now known as Kernig's sign was noted. In the next five the presence of the *Diplococcus intracellularis meningitidis* was demonstrated, and thus, according to prevailing views, their true character established. For this I have often been indebted to Dr. E. H. Wilson, Director of the Bacteriological Department of the Hoagland Laboratory. As, according to him, these are the only cases in Brooklyn in which this has been done, they acquire a primary value. Of course, other

cases might be added, but particulars will only be given of those in which the germ was found or that have some special interest.

It may be asked, how many suspected cases have failed to give such positive result? Dr. Wilson's record shows but one, and in that, an uncertain case, some contamination of undetermined nature was found. Consequently I believe the symptomatology, if carefully studied, sufficient in most instances to warrant accuracy in diagnosis.

I.—Girl, 10 years old, seen March 17, 1889, with Dr. Charles Jewett, at Bedford Ave., near Willoughby.

Four days previously she came in from play in the afternoon and had a 15-minute chill; then complained of pain in the back and vomited. Has since been restless. Pain in various parts of the body, as across the forehead, in the right side, etc., causing her to keep up more or less moaning, and requiring an opiate. The fever has run about 101.0 in the axilla. Bowels have moved freely, in part from calomel. Mild delirium much of the time. Yesterday opisthotonus developed with increase of the ache in head and back of neck. The right lower extremity she now rarely moves, and at times it is insensible to pricking. The right arm also is less used now. Bladder acts well. There has been no special amount of perspiration, though beads of sweat are now noticeable over the head.

Lies with the head retracted; drawing it forward slightly soon causes pain. When almost any tendon in the body is stretched and directly passed against, pain is complained of. Slight pressure, just of the skin, is somewhat sensitive over the leg, left side of abdomen and elsewhere, though deep pressure at the same places is but slightly so. The skin feels hot and feverish. Pulse fair, a little fast. Breathing regular. Sensorium fairly clear when aroused, i. e., she then recognizes people and answers simple questions.

No noticeable photophobia. Sees better with the left eye; on waking her from a doze the right diverged outward and upward. On full illumination the right pupil is now very small and prac-

\* Paper read before the Brooklyn Society for Neurology, Feb. 13, 1904.

tically fixed, the left wider and very variable; on rousing her the left seemed to react promptly to light, but soon again exhibited continuous spontaneous change. She lies steadily on the right side, moving arms and legs some, especially those of the left side. The *tache cérébrale* on stroking the chest is neither prompt nor very marked. No knee jerk obtainable. On flexing thigh on trunk and then trying to extend leg, considerable latent contracture is found (described by Kernig in 1884 and now named after him). Weak plantar reflex on both sides, possibly slighter on the right. Abdominal reflex present.

Thirst. Several herpes patches about mouth. Tongue somewhat coated, with prominent papillae.

On May 11, i. e., two months after onset, Dr. Jewett informed me that this girl had recovered. A right hemiplegia (arm and leg) developed more fully, but was recovered from. The opisthotonos lasted some time. When last seen, the pupils had not quite recovered equality, and some sensations on left side of head were still complained of.

II.—Sister of preceding case, 19 years old, seen at same time and place, but with Dr. Van Deusen. History of an attack of lead colic about a month ago.

The day after that on which the younger sister was seized, this girl remained out until 1 A. M. On coming home she had an indefinite chill, pain down the right lower extremity, and vomiting. Since then there has gradually developed pain in the right arm, in back and forehead; mild delirium, low fever, and restlessness. Moans. Has been so wild and excited as to require sedatives. Breathing now irregular. Complains of pain in the right leg. Rolls back and forth on any attempt at examination of eyes. Occasional divergence of eyes when in a doze. Light reaction uncertain. Mouth dry; lips parched; black sordes on teeth. Knee-jerk present on right at least. Some latent contracture in the right lower extremity, if not in both. Radial reflexes even and normal. Sensorium quite clouded, making the impression of a somnolent morose person enduring suffering. Constipation and anorexia since onset. Marked photophobia has been persistent. This patient died within a day or two.

III.—Boy of 13 years, seen with Dr. E. P. Hickok, October 13, 1900, at Euclid Avenue, E. N. Y. Works in an office in Manhattan.

After a severe wetting in the rain he was taken on the evening of October 9 with a chill, violent fever and delirium. At first treated by another,

but now since night before last in Dr. H.'s care. He found the boy exceedingly restless and delirious, so that they were unable to keep him covered in bed; tongue parched like a board, sordes, T. 101.0 in the rectum (though the skin felt normal). The pulse at the wrist was hardly discernible, 125-130 over the heart. Slight constipation, after an asserted primary diarrhea. Constant vomiting until Dr. H. took charge, but none since.

Yesterday more decided retraction of the head. To-day the P. is 136. Urine shows no albumin; sp. gr. 1025. One herpetic patch on upper lip over left corner of mouth. Tongue coated. The arms show just normal radial jerks. He is conscious this morning, moaning slowly most of the time. No knee-jerks. There is a spotted eruption over the extremities. Babinski normal on each side, though not constant. Some plantar reflex, T. 102.2. Tension in muscles of lower extremities, not of upper. *Tache cérébrale* well marked. Pupils equal and react promptly.

One ounce of opalescent fluid was withdrawn by spinal puncture, the pulse falling to 120. Dr. Wilson found the meningo-coccus in "pure culture."

He improved well after the puncture, but went out too soon and had a severe relapse. He however eventually recovered, requiring the Doctor's care until into December.

IV.—A boy in Middleton Street, seen April 14, 1901, with Dr. F. H. Clark. I first saw him at the house and did a spinal puncture. The fluid was found by Dr. Wilson to contain the meningo-diplococcus. The patient was then removed to the Bushwick Hospital, where, on April 27, Dr. Clark trephined at the base of the occiput. It was a severe case running a fulminant course. But after the operation his mental condition cleared up markedly, and for a week or two he appeared to do well. Then he rapidly retrograded and died.

The operation was undertaken because in other cases considerable relief had followed spinal puncture, and it seemed warrantable to suppose that more prolonged and effective drainage might prove successful. This is but ordinary surgical teaching—to drain off all or as much infectious material as possible. Although it failed in this case, still temporary improvement occurred and the boy apparently lived longer and more comfortably in consequence. The reason for choosing the occipital site for the opening need not be discussed here further than to say that it gives the freest drainage (directly opposite the ven-



tricular outlet of the fluid, the foramen of Magendie), and with least chance of return-infection.

A case, supposedly of this disorder, was treated successfully by laminectomy of the seventh and eighth dorsal vertebrae and drainage for 40 days, according to Rolleston and Allingham (*Lancet*, 1899, April), although the case was of course unknown to me at the time of our operation.

V.—Mrs. B., 23 years old, seen with Dr. E. P. Hickok, January 9, 1903, on Snediker Avenue.

Is the mother of two children. Has been generally healthy, though of rather spare habits, "not over strong."

When a child, living then also in East New York, she had what was called "brain fever." From Dr. Vermilye, who attended her at that time, I learn that it was a true typhoid fever with meningeal complications, and probably not an earlier attack of her present trouble.

This began on December 25, 1902, when she had a chill followed by a little sore-throat, "apparently just a little grip attack." For that the Doctor only had occasion to see her once. She soon was about again, and even went out.

She is said to have walked four or five blocks bare-headed on January 4th. On the following day, the 5th, the Doctor was called again, as she had "a terrific chill." She then complained of severe headache and had a high fever. At first a pneumonia was suspected.

On January 6, the mouth T. was 103.0. There was then persistent vomiting and severe occipito-cervical pain. The T. since has ranged from 102.5 to 103.5, and last night was up to 104.0.

The pulse was over 120 at first, but has since been down to 105-110.

Yesterday she began to complain of indistinct vision. But she has continued all this time rational, unless a "little flighty" when quiet.

Has had two hypodermics in all, though contemplated even before any opiates.

Pulse now 168 and weak. "She has been quite flighty all night;" she, however, talked to us naturally. Says the pain is now frontal and occipital. The last vomiting was the evening of January 7th.

This morning for the first there appeared a squint which proves to be a complete paralysis of the left external rectus. She, however, claims not to see double even when the eyes cross. T. 100.4; hands, neck and surface generally do not feel specially feverish to the touch. Spleen not large. A couple of small red spots on the back, blanching on pressure. Moans a great deal.

Since yesterday, some distinct stiffening of back of neck. No particular tension of muscles of extremities, though she objects to testing therefor.

About an ounce of fluid was removed by lumbar puncture and submitted to Dr. E. H. Wilson. He reported the presence of the typical meningeal diplococcus. The case ended fatally.

VI.—Adolf F., 17 years old, upper Greene Avenue, seen with Drs. Bender and Hoople, December 5 and 9, 1903.

Chorea four or five years ago. Troubled also with a running of the right ear, "as a boy and some two years ago, but not since." Said to have been feeling "poorly" before this. Complained of headache daily all this year, mostly right-sided, but at times occipital or all over. "Wasn't lively and had a poor appetite all summer." Father said to be a hard drinker. An older sister was neurasthenic; the other children are younger.

The present trouble started two weeks ago with "grippe," enlarged tonsils, and a rise in T. to 103.0. A brother of his was suffering at the same time from a like attack, together with swelling of the cervical glands. The patient is "otherwise a good boy, well-behaved," but at present is somewhat ugly. There was no chill.

The following day (i. e., just two weeks before I saw him) he was uneasy, ran up a T. to 103.5, and vomited twice. But his head remained "tolerably clear." "His hearing was all right that evening." But by the next morning "his hearing was absolutely gone" in both ears. "But he was less uneasy, and answered" questions put to him on paper. Dr. Hoople saw him at this time, and to him I am indebted for much of the information as to his then condition. His pulse was 140 and very small. R. 28. Slight opisthotonos. Some trifling tenderness below the right mastoid, but none from direct pressure on either mastoid itself. A large perforation in the right drum. No pus, odor, discharge or sign of recent inflammatory reaction. Pupils were equal and reactive to light.

Disc normal in both eyes eleven days ago, unless slight enlargement of retinal veins. No ocular weakness, except slight photophobia. V. R. 20-30, V. D. 20-20.

There was a trifling discharge from the right ear three days ago, and yesterday a purulent, bad-smelling discharge from the same.

Three nights ago, "loss of motion in left arm and leg . . . appeared during the night;" by afternoon he could squeeze some with the left hand and that hand and arm had improved ever

since (is left-handed). Left side of face smoother than right, but he can still whistle a little. The left lower extremity has improved but slightly.

The R. dropped to 10 at the time of this hemiparesis, then gradually rose to 23.4 again. No vomiting. "There was never any slow pulse." T. down to 99.2 or 100.0 in the morning, and up to 101 or 102 in the afternoon. Excess of phosphates is the only thing notable about the urine.

On paper he now answers promptly and very sensibly, though at first after the paresis his replies were slower and more difficult. Was also "sleepy at that time." No pharyngeal reflex. He is now deaf even for the extreme notes up or down; tinnitus, however, of the right ear since the deafness.

Can wink either eye alone, and scowl on both sides. Tongue comes out straight. He answers written questions with a natural voice and a good, even sound, surprisingly so for one totally deaf.

Arm reflexes equal and not increased; trifle biceps, though very slight radial. Pulling hairs over forearms or legs appears equally sensitive on the two sides. No ankle-clonus on either side. Knee jerk is faint on the left, and perhaps a trifle stronger on the right. On the right the Babinski is normal; on the left a normal reaction to the outer toes, but the big and adjacent toes jump upwards a little. There is a tendency all the time for the head to turn to the right. He keeps a very close watch of everything going on around him.

Seen again December 9. "His cerebral functions seem to be a little slower." Involuntary evacuation of bowels twice in the night of December 7-8. To-day, part of the time he calls for urinal when needed and again not. In answering questions, he does it once or twice, "then he will play with the pad or look at you." "There seems to be less spasm of the cervical muscles." He no longer turns his head specially to either side. "He takes about two quarts of milk in 24 hours, and swallows quite well." Some nystagmus. Rectal T. 99.5 mornings, and 101 or more in the evening. P. 100-118. Marked retraction of head. "He complains nearly all day to-day of headache. Popliteal tension is present. No plantar reflex at least on left. Normal Babinski on the right, except that the big toe retracts upwards. No definite knee jerk either side. No abdominal reflex. Epigastric present on right, but indefinite on the left.

Spinal puncture gave a slightly turbid fluid, which was found by Dr. Wilson to contain the characteristic meningo-coccus.

The young man from that time on improved and in a general way has now recovered from his attack. But, as usual, in that complication the deafness does not show improvement. Such occurrence of sudden, complete and lasting deafness early in this disease is not unknown; but when it develops in a person previously afflicted with attacks of ear-trouble it may well constitute a diagnostic puzzle.

VII.—Dr. Wilson has record of a fifth positive case of mine, but I have not been able to trace it (possibly from some institution, or passed without notes).

#### UNRECOGNIZED CASES.

From various observations and facts I have a strong impression that many slight forms and obscure cases of infection with this organism pass without recognition of their true nature. Especially must this apply to sporadic cases. The more frequent resort to a bacteriological examination of the spinal fluid in uncertain cases would extend our knowledge in a useful direction.

Even in the last detailed case above, where two brothers were attacked by sore throat, etc., the one showing swollen cervical glands and the other developing meningitis, it must still remain a question whether the latter was an added infection to the tonsillitis, or whether the primary throat trouble in each may not have been due to or complicated with special coccus infection.

III.—I well remember one such case on my block in Grand Avenue, first seen in October, 1900. A young man not out of the teens had an obscure run of slight fever, but with continuous deep headache and an inexplicable stupor or mental lethargy. For a time the nature of the trouble could not be suspected. The development of moderate retraction of the head and nuchal pain and the knowledge of another case in town indicated the diagnosis. He made a fair recovery, but his progress was exceedingly slow. For months any little excitement or mental over-effort brought on headache and distinct evidence of intra-cranial pressure. He tried his old position, but could not keep at it long, because of his head. A long stay at Bermuda brought a more definite cure, though for more than a year some symptoms could still be brought on by the old causes.

Two other milder but possibly similar cases, in married women of middle life, I have seen since. The one was in the practice of Dr. Madsen, and at first looked ominous; but care and a due amount of time to work in brought about a



cure. The other was seen with Dr. J. B. Bogart; a neurologist from out of town flippantly dubbed it a neurasthenia, advised activities of various sorts, and made a prognosis of easy recovery. When next heard from, some months later, she had become a "sanitarium-chaser." In time she made a fair recovery. The different course run by these two originally very similar cases indicates the importance of a correct view of the facts.

#### EXPLANATION OF SEQUELAE.

The usual explanation of the after-conditions that we see persist more or less obstinately is that they are due to direct compression and destruction of outgoing nerves by the inflammatory material, or to the scars from shrinking exudate. And without doubt this does apply to such things as deafness, paralysis or paresis, and the like.

But we also know two general facts, 1. That the course of recovery in these cases, where it occurs, is exceedingly tedious—far more so than from any other infectious disease that I recall. 2. That there is a group of special symptoms in these recovering cases, that only occur under special conditions. So long as the patient keeps bodily quiet, mentally inactive, and there is no fever or other disturbance, the patient is comfortable. But if these factors come into play, a series of complaints and symptoms like those in the last-mentioned case make their appearance. Such persons are often unable for a long time to resume their occupation, although feeling equal to it until they try.

All this class of subsequent phenomena can, I am sure, very properly be attributed to the blocking of the efferents of the spinal fluid by the inflammation and its products. It also explains the extreme slowness of recovery.

Correspondingly, remedies acting in that sense give the best relief. In a warm atmosphere and begun gradually, such a person is soon able to take a good amount of physical exercise, and in fact in that manner can aid the development of new efferents. For immediate relief, quiet, absorbents, warmth to extremities, mild depressants, etc., serve best.

**INFECTION.**—More definite knowledge of the sources of infection in these cases is desirable. The Mass. Report, p. 165, says: "Reports as to the contagiousness of the disease vary, but the general opinion is that the disease is not propagated by contagion. In this epidemic [111 cases] there were seen several instances in which two cases came from the same house and family." And on p. 24: "The evidence, on the whole, is not

conclusive that the disease is incapable of being transmitted from one individual to another." While these conservative or confusing statements may be sufficiently true to serve as an index, they are far from being either complete or exact.

Especially does there appear to be a possible source of danger in the now frequently practiced spinal puncture in these cases. The fluid usually leaks or runs out to some extent over the hands of the operator and thus must often come in contact with an abrasion; it may also drop on the bed-clothes and there dry and be scattered. The following facts bearing on these queries, as kindly suggested to me by Dr. Wilson, indicate, however, so far as experiment well can, that the operator runs little or no risks, but are indecisive as to the other danger.

Weichselbaum (*Fortsch. d. Med.*, 1887, Nos. 18 and 19) produced the disease by subdural injections, and if preceded by brain lesion, also even by intra-venous injections, in either case of cultures of the bacillus. Subcutaneous injections he found did not succeed, although intra-peritoneal or intra-pleuritic gave positive results,—the resulting changes, however, not exactly like those seen in the human.

Jaeger (*Zeitschr. f. Hygiene*, Vol. XIX, 1895, p. 351) found guinea pigs amenable to intra-pleural and intra-peritoneal injections. "The nasal secretion of the meningitis-patient regularly contains the parasites." He holds further that this is the carrier of the contagion, and that it resists drying. Handkerchiefs and the like should be specially disinfected, he says.

Roger, in his treatise (1903, p. 426) says that, "this pathogenic organism invades the economy through the nasal fossa." And Schiff (1898) claims to have found it in the nasal cavities of healthy individuals; we now know, however, that the mere finding of diplococci in nasal secretion should not be considered conclusive.

The usual habitat of the bacillus outside the human organism does not appear to be known. Possibly, like the pneumo-coccus, it lurks in the nasal and adjacent spaces of many individuals.

Netter, of Paris, 20th Century Practice, Vol. XVI, 1899, p. 211, concludes that the germ may persist in a locality for months; although summer, with its open doors, air and sunshine, chokes it out.

The mode of infection may, therefore, be considered as determined; but the source and favoring causes of this are still uncertain.

The initial or precedent throat trouble in certain cases of the present series is very suggestive in this connection; Grip-chill with sore throat in

VI; Tonsillitis in VII; even the severe wetting in the rain (IV); and finally a case of Dr. Winfield's in April, 1889, that began with or was preceded by Spasmodic Croup, followed by fever, convulsions, erythema, episthotos and death in three days (the real character of this case I was able to corroborate by autopsy). Apparently in these cases the inflammatory or obstructive trouble about the throat or nose produced a condition that favored or forced the entry of the meningeal coccus into the system. Perhaps more careful attention to this feature in the anamnesis will clear up one factor in the individual's infection. To make this applicable to the more distinctly epidemic forms we must presume that from some source there is at such times a far greater prevalence of the infective organism.

Analogous observations referring to the upper air passages, accessory sinuses or ears, have been noted by Weichselbaum, Strümpell, Orthman, Netter, Scherer, Weigert, etc., although Netter claims there are epidemics and cases in which no nasal complications occur and in which the agent enters through the pulmonary alveoli.

**MORTALITY.**—The mortality of this disease varies considerably with time and circumstance. It is usually given as about 50%, but in epidemics as high as 75%, or on the contrary in isolated cases down to 20% or lower. Without doubt, as usually given, it is for two reasons too high. In the first place only the severer cases get into hospitals or are likely to be included in health reports, and it is upon these that such figures are largely based. On the other hand, in sporadic cases it is inevitable that many and naturally the lighter should fail of recognition. The cases detailed in this paper were too few in number for much value, and as consultation cases most of them must have been above the average in severity.

#### CEREBRO-SPINAL MENINGITIS IN BROOKLYN.

So far as I am aware, no special article on this disorder in Brooklyn has appeared, aside from what is given in the weekly and annual Reports of the Board of Health. While Spotted Fever, as it was called, had doubtless occurred here previously, the first distinct mention of it was about the time in the early sixties, when this disease was epidemic and disastrous in so many parts of the world. In the *Trans. Med. Soc. of the County of Kings*, for February, 1864, Dr. Minor briefly reported a case: "The most prominent symptoms were opisthotos and great prostration. The patient recovered." A case reported

by Dr. Conklin the previous year was of another nature. In April, 1864, Dr. D. S. Langdon "Reported two cases of cerebro-spinal meningitis. They were characterized by the appearance of rubeola-like spots, more livid towards the last, tetanic spasms and fatality. On post-mortem the meninges of the brain and spinal marrow were found to be intensely inflamed." At the same time reports of cases by others were made.

The *Proceedings* of the Society, 1876-1883, contain no reference, nor does the volume of the Pathological Society (1885-6).

Excellent general articles may be found in the *Brooklyn Med. Jour.* for March, 1902 (p. 151), November, 1902 (Hotchkiss, p. 481), and September, 1903 (Frank Little and others).

#### STATISTICS FROM THE BROOKLYN BOARD OF HEALTH.

Since the merger of 1898 into the greater city the facts for Brooklyn must be taken from the New York reports, but as the classification is supposed to have changed somewhat, I shall confine myself mostly to the period just before that.

It required an unexpected amount of work to glean the statistics buried in the health reports. With regard to this disease they are, for the later years, only to be gathered from the weekly sheets, and even there the figures are not always or correctly given in the total summaries for the week. It may be queried whether they are of value when found or whether the net results were worth the labor. As the figures include only the mortality, they represent but a fraction of all the cases that occurred.

Still, it is warrantable to collect all the available information bearing on the disease as it appears here. It is certainly not such a rare trouble as to have merely a theoretical interest. And our community is large enough to warrant the special study of any disease that occurs with any frequency within our borders.

The health reports of the old city of Brooklyn from 1851 to 1861 inclusive (the later ones giving tables back to 1848), make no mention of this disorder. The large number of cases of congestion and of inflammation of the brain suggest that it may have been included under those heads. Published reports from 1862 to 1865 inclusive, as also from 1870 and 1871, I have been unable to find.

The following table summarizes the findings for the 19 consecutive years, 1879 to 1897 inclusive. Those for the last three of these years, however, cannot be given by wards.



Years.	Wards.																														Totals by Years.	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		
1879.....			1											1				1							1						4	
1880.....																					2										2	
1881.....			2	1		7		1		2		1	1					1			1				1						18	
1882.....					3															1						1					5	
1883.....						1					1																				2	
1884.....										1																					1	
1885.....				1	4			1																							6	
1886.....																															0	
1887.....																															0	
1888.....					1																										1	
1889.....							1							2																	3	
1890.....			1		1	4	2		1	2	3	3	3	9	3		2	8	1	1	1	1		1	6						52	
1891.....					1	8	5	9	3	3	1	2	7	14	4	2	2	7		2	6	8		3	2	2						91
1892.....	5		1	1	3	7	3	5	1	6	2	2	6	14	3	6	4	4	2	3	4	5	1	2	7	2		2			100	
1893.....	2	2		4	4	11	5	7	2	3	5	5	6	9	2	8	11	4	3	4	2	7	4	5	4	2	2	5			128	
1894.....						1		2		1	1	1		1			1			1					3	1					25	
1895.....																															2	
1896.....																															2	
1897.....																															1	
Totals by Wards.....	7	2	5	7	17	39	16	25	7	18	13	14	23	50	12	16	20	25	6	11	16	21	5	11	25	7	2	7			444	
Population by Wards, 1880 and 1896.																																
1896.....	24,000																															
	8,729	9,254	11,000	18,271	24,500	12,817	16,000	18,517	21,000	35,437	50,000	31,033	44,000	47,388	45,000	15,044	42,000	27,140	49,000	21,080	27,000	28,000	22,201	37,000	22,029	30,000	25,559	33,500	23,054	34,000	42,712	48,500
1880.....	8,729	9,254	11,000	18,271	24,500	12,817	16,000	18,517	21,000	35,437	50,000	31,033	44,000	47,388	45,000	15,044	42,000	27,140	49,000	21,080	27,000	28,000	22,201	37,000	22,029	30,000	25,559	33,500	23,054	34,000	42,712	48,500
	8,729	9,254	11,000	18,271	24,500	12,817	16,000	18,517	21,000	35,437	50,000	31,033	44,000	47,388	45,000	15,044	42,000	27,140	49,000	21,080	27,000	28,000	22,201	37,000	22,029	30,000	25,559	33,500	23,054	34,000	42,712	48,500
	8,729	9,254	11,000	18,271	24,500	12,817	16,000	18,517	21,000	35,437	50,000	31,033	44,000	47,388	45,000	15,044	42,000	27,140	49,000	21,080	27,000	28,000	22,201	37,000	22,029	30,000	25,559	33,500	23,054	34,000	42,712	48,500
	8,729	9,254	11,000	18,271	24,500	12,817	16,000	18,517	21,000	35,437	50,000	31,033	44,000	47,388	45,000	15,044	42,000	27,140	49,000	21,080	27,000	28,000	22,201	37,000	22,029	30,000	25,559	33,500	23,054	34,000	42,712	48,500
	8,729	9,254	11,000	18,271	24,500	12,817	16,000	18,517	21,000	35,437	50,000	31,033	44,000	47,388	45,000	15,044	42,000	27,140	49,000	21,080	27,000	28,000	22,201	37,000	22,029	30,000	25,559	33,500	23,054	34,000	42,712	48,500
	8,729	9,254	11,000	18,271	24,500	12,817	16,000	18,517	21,000	35,437	50,000	31,033	44,000	47,388	45,000	15,044	42,000	27,140	49,000	21,080	27,000	28,000	22,201	37,000	22,029	30,000	25,559	33,500	23,054	34,000	42,712	48,500
	8,729	9,254	11,000	18,271	24,500	12,817	16,000	18,517	21,000	35,437	50,000	31,033	44,000	47,388	45,000	15,044	42,000	27,140	49,000	21,080	27,000	28,000	22,201	37,000	22,029	30,000	25,559	33,500	23,054	34,000	42,712	48,500
	8,729	9,254	11,000	18,271	24,500	12,817	16,000	18,517	21,000	35,437	50,000	31,033	44,000	47,388	45,000	15,044	42,000	27,140	49,000	21,080	27,000	28,000	22,201	37,000	22,029	30,000	25,559	33,500	23,054	34,000	42,712	48,500
	8,729	9,254	11,000	18,271	24,500	12,817	16,000	18,517	21,000	35,437	50,000	31,033	44,000	47,388	45,000	15,044	42,000	27,140	49,000	21,080	27,000	28,000	22,201	37,000	22,029	30,000	25,559	33,500	23,054	34,000	42,712	48,500
	8,729	9,254	11,000	18,271	24,500	12,817	16,000	18,517	21,000	35,437	50,000	31,033	44,000	47,388	45,000	15,044	42,000	27,140	49,000	21,080	27,000	28,000	22,201	37,000	22,029	30,000	25,559	33,500	23,054	34,000	42,712	48,500
	8,729	9,254	11,000	18,271	24,500	12,817	16,000	18,517	21,000	35,437	50,000	31,033	44,000	47,388	45,000	15,044	42,000	27,140	49,000	21,080	27,000	28,000	22,201	37,000	22,029	30,000	25,559	33,500	23,054	34,000	42,712	48,500
	8,729	9,254	11,000	18,271	24,500	12,817	16,000	18,517	21,000	35,437	50,000	31,033	44,000	47,388	45,000	15,044	42,000	27,140	49,000	21,080	27,000	28,000	22,201	37,000	22,029	30,000	25,559	33,500	23,054	34,000	42,712	48,500
	8,729	9,254	11,000	18,271	24,500	12,817	16,000	18,517	21,000	35,437	50,000	31,033	44,000	47,388	45,000	15,044	42,000	27,140	49,000	21,080	27,000	28,000	22,201	37,000	22,029	30,000	25,559	33,500	23,054	34,000	42,712	48,500
	8,729	9,254	11,000	18,271	24,500	12,817	16,000	18,517	21,000	35,437	50,000	31,033	44,000	47,388	45,000	15,044	42,000	27,140	49,000	21,080	27,000	28,000	22,201	37,000	22,029	30,000	25,559	33,500	23,054	34,000	42,712	48,500
	8,729	9,254	11,000	18,271	24,500	12,817	16,000	18,517	21,000	35,437	50,000	31,033	44,000	47,388	45,000	15,044	42,000	27,140	49,000	21,080	27,000	28,000	22,201	37,000	22,029	30,000	25,559	33,500	23,054	34,000	42,712	48,500
	8,729	9,254	11,000	18,271	24,500	12,817	16,000	18,517	21,000	35,437	50,000	31,033	44,000	47,388	45,000	15,044	42,000	27,140	49,000	21,080	27,000	28,000	22,201	37,000	22,029	30,000	25,559	33,500	23,054	34,000	42,712	48,500
	8,729	9,254	11,000	18,271	24,500	12,817	16,000	18,517	21,000	35,437	50,000	31,033	44,000	47,388	45,000	15,044	42,000	27,140	49,000	21,080	27,000	28,000	22,201	37,000	22,029	30,000	25,559	33,500	23,054	34,000	42,712	48,500
	8,729	9,254	11,000	18,271	24,500	12,817	16,000	18,517	21,000	35,437	50,000	31,033	44,000	47,388	45,000	15,044	42,000	27,140	49,000	21,080	27,000	28,000	22,201	37,000	22,029	30,000	25,559	33,500	23,054	34,000	42,712	48,500
	8,729	9,254	11,000	18,271	24,500	12,817	16,000	18,517	21,000	35,437	50,000	31,033	44,000	47,388	45,000	15,044	42,000	27,140	49,000	21,080	27,000	28,000	22,201	37,000	22,029	30,000	25,559	33,500	23,054	34,000	42,712	48,500
	8,729	9,254	11,000	18,271	24,500	12,817	16,000	18,517	21,000	35,437	50,000	31,033	44,000	47,388	45,000	15,044	42,000	27,140	49,000	21,080	27,000	28,000	22,201	37,000	22,029	30,000	25,559	33,500	23,054	34,000	42,712	48,500
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	8,729	9,254	11,000	18,271	24,500	12,817	16,000	18,517	21,000	35,437	50,000	31,033	44,000	47,388	45,000	15,044	42,000	27,140	49,000	21,080	27,000	28,000	22,201	37,000	22,029	30,000	25,559	33,500	23,054	34,000	42,712	48,500
	8,729	9,254	11,000	18,271	24,500	12,817	16,000	18,517	21,000	35,437	50,000	31,033	44,000	47,388	45,000	15,044	42,000	27,140	49,000	21,080	27,000	28,000	22,201	37,000	22,029	30,000	25,559	33,500	23,054	34,000	42,712	48,500
	8,729	9,254	11,000	18,271	24,500	12,817	16,000	18,517	21,000	35,437	50,000	31,033	44,000	47,388	45,000	15,044	42,000	27,140	49,000	2												

## Population by Wards, 1880 and 1896.

	1896.....	1880.....
1896.....	24,000	18,729
	11,000	9,254
	24,500	18,271
	16,000	12,819
	21,000	18,517
	50,000	35,437
	44,000	31,633
	45,000	17,388
	42,000	15,044
	49,000	27,140
	27,000	21,080
	38,000	22,201
	30,000	21,029
	33,500	25,559
	34,000	23,654
	48,500	42,712
	51,000	30,088
	23,500	23,926
	41,000	27,661
	32,000	24,188
	61,000	31,956
	59,000	25,473
	55,000	14,396
	27,000	8,823
	50,000	10,055
	47,000	13,655
	36,500	.....
	58,000	.....
	.....	7,634
	.....	3,674

It may be explained that the ward boundaries were somewhat changed in 1892, affecting especially wards 9, 18, 22, 23, 25, 27 and 29. Also that 26, 29 and 30 were not in the city limits until into the nineties. In the two wards, 6 and 14, however, having the largest number of cases, there was no change in area, nor again in the older wards having the least.

## By Months (for 1879 to 1897 included).

Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
34	31	42	55	54	37	38	28	39	35	34	17	444

This shows a somewhat greater incidence in the three Spring months. Even in the more epidemic outbreaks, the greatest frequency has been found to be in the Spring, or Winter and Spring months.

## MORTALITY.

YEAR.	M.	F.	TOTAL.
1866 (6 months to Sept. 30)*..	..	..	3
1867 (one year to Sept. 30)*..	5	3	8
1868 (one year to Sept. 30)*..	6	7	13
1869 (one year to Dec. 31)*..	4	5	9
1872 .....	142	126	268
1873 .....	56	58	114
1874 .....	16	12	28
1875 .....	..	..	18
1876 .....	..	..	20
1877 .....	11	9	20
1878 .....	6	10	16

In explanation of the above figures it may be again stated that they are derived by adding up the mortality as published for each week in the year. The numbers vary considerably in the earlier years from the totals subsequently given by the Department itself in the Report for 1884 (covering the years 1877-1884). For some of these years two tables are given, one of deaths, the other of "cases and deaths by ages and sexes."

\*The figures for 1866-9 are from Reports of the old Metropolitan Board of Health.

All the others to 1897-8 are from Reports of the Brooklyn Department of Health.

For 1877, p. 37, 19 cases and 12 deaths.

For 1878, p. 47, 10 cases and 8 deaths.

For 1879, p. 60, 2 cases and 2 deaths.

For 1880, p. 77, 10 cases and 3 deaths.

For 1881, p. 95, 40 cases and 34 deaths.

We hear health statistics condemned because of the asserted untrustworthiness of most diagnoses. But here we find, even in the office figures for 1879, 1880 and 1881 (by comparing those just quoted in the table) discrepancies such as no man of ordinary intelligence can hope to interpret. (It was impossible to apply the test of classification by age, since, according to the Mass. Report, p. x, "the disease is extremely rare among infants as well as those of advanced age.") Although we must conclude that from any exact point of view such figures are untrustworthy, it does not follow that they are worthless;—the gradual rise and fall in mortality, the wide distribution in the town, the correspondence with experience as to seasons, all indicate that in a broad and average way they tell the truth.

According to the New York City Health Reports it appears that the deaths from this disease

in Brooklyn numbered 82 in 1898, 94 in 1899, 93 in 1900, and 57 in 1901.

One cannot but be struck with the sudden variation in mortality from this cause, on any great change in the official side of the Health Department—as when the Metropolitan Board gave place to a local one, or again when the local was transferred to the enlarged city.

According to information very kindly furnished by Dr. Raymond, chief of the Borough Dept. of Health, under date of Dec. 16 and 18, 1903, it appears that despite the requirement of the Sanitary Code, “the reported number of these cases during life is a negligible quantity.” “Occasionally some one sends in a report, but it is very rare.” “The deaths from Epidemic Cerebro-spinal Meningitis (Borough of Brooklyn) in the year 1902 were 55, and for 1893 up to date also 55.” These figures may not be exact, as they came from some subordinate, and in none of the cases so far as known has a bacteriological diagnosis been made, except those detailed in this paper. In addition to other points, it is this definite proof of the occurrence of the disease in Brooklyn that is now offered.

#### ADDENDUM.

The shipping interests of Brooklyn warrant a word regarding the influence of that industry on the occurrence of this disease.

In the first place, the mortality statistics of the town must be somewhat affected by imported cases. In one of our hospitals receiving immigrants, a dozen or more such cases were treated last year, all apparently developing on shipboard.

Then the table above given shows the greatest frequency in the 14th and 6th wards, each on the river front and where living quarters come down close to the water. A comparison shows further that in proportion to the population the wards touching on the East River, Newtown Creek, or Gowanus Canal (*i. e.*, on the commercial waterways of the town), have about twice as many cases as the interior wards not directly on the water. It is not easy to determine whether this might with equal reason be attributable to greater density of population.

In this connection may also be related some experience with an epidemic on the receiving ship at our Navy Yard. For particulars of this I am indebted to the courtesy of Medical Director A. F. Price, now Surgeon of the Yard. The quotations are from his recent letter: “I have a report (copy) made by my predecessor, Dr. Byrnes, on the old receiving ship *Vermont*, in July, 1901, from which the following facts are taken and quotations made:

“A careful investigation of the hygienic surroundings of the vessel (*Vermont*) was made and the following condition was found to exist: The presence of an unusual number of contagious and infectious diseases among the members of the crew during the past six months, as follows: cerebro-spinal meningitis, erysipelas, diphtheria, scarlet fever, small pox, measles, German measles, and mumps. Since March 4th, 1901, eight cases of cerebro-spinal meningitis occurred. They are traceable to local conditions existing in the ship. Five of the cases died, and one was permanently disabled.

“The locality from which all the cases occurred is at a point on the berth deck just abaft of the bag-room. Bags and hammocks, the property of the enlisted force of the day, are received at all times and from all parts of the world and are stored in the bag-room without being previously disinfected, or other means taken looking towards freeing the wearing apparel and bedding from contagious and infectious material. The space alluded to on the berth deck is used at night by a number of men who sleep here, and the apparent focus of infection in the cases of cerebro-spinal meningitis has been traced with reasonable certainty to this point.” “The cases are not included in the Brooklyn Health Department statistics.”

Dr. Price adds the following: “I think overcrowding and dampness are powerful predisposing causes. In 1872 (about), I was on duty at the Naval Hospital, Philadelphia, and treated a number of cases of this disease sent to the hospital from the receiving ship *Potomac*. The origin of the disease, as I remember it, was traced to a draft of men who were sent on a large tug from Boston to Philadelphia. They were much crowded on board and the weather being rough and stormy, the men were kept below much of the time. They were transferred to the *Potomac*, where the disease broke out. Some of the men were transferred to other ships, and were subsequently affected with the disease. I think we had about ten cases, and one Assistant Surgeon died, who came from the *Potomac* to the hospital.”

These facts indicate that a crowded ship or a region with active shipping interests is specially liable to start the disease. While, like beri beri, it often enough occurs inland, still, ships must be suspected of being special distributors of infection. This is in line with much experience showing that from crowding, as in barracks, outbreaks are specially liable to occur.



## AFTERTHOUGHTS: A CORRESPONDENCE.

BY A. JACOBI, M.D.,

Chairman of the Joint Conference Committee

"A long step in advance has just been taken by the agreement of the New York State Medical Association and the Medical Society of the State of New York to join hands and to form an organization worthy of the twelve thousand physicians of the Empire State."—Frederick Holme Wiggin, president's address, *N. Y. State Journal of Medicine*, November, 1903.

"I feel that we should consider not only what is for our present interests, not our feelings for the present time, but should take into consideration the question of the future welfare of the medical profession of the State of New York."—William H. Thornton, presidential address, March 21st, 1904.

EDITOR OF THE BROOKLYN MEDICAL JOURNAL:

*Dear Sir*—You have been good enough to address me lately in reference to the unification of the medical profession of the State of New York. My first impression when I read your letter was that I had nothing to say in addition to the reports made by the committees of the Medical Society of the State of New York and of the New York State Medical Association. They have been published and appreciated, both for their historical value and the lessons they teach. Still there are several reasons why I should apply to you for a hearing in regard to the evolution which has taken place under our eyes and with the cordial support of most of us. Like those many who take a warm interest in the welfare and the progress of the profession—their number is increasing with the knowledge of its beneficial influence in shaping the sanitary, political and social destiny of the people—I have rejoiced in the success of the endeavors to consolidate our two large medical bodies so as to continue and re-establish on its old firm foundation the Medical Society of the State of New York, and to fortify it by the democratic principles elaborated in the organization of the American and the New York State Medical Associations. Some of our large journals—the *Medical News*, the *New York and Philadelphia Medical Journal*, the *Journal of the American Medical Association*, *American Medicine* and others—have made their readers fully acquainted from time to time with the labors of the two committees appointed by the Medical Society of the State and the New York State Association. They were not always light. It took time, patience and per-

sistency to arrive at results which were to meet with unanimous acceptance.

What is this unanimity due to? To no single person or number of persons. History is not made by individuals, but is the visible result of a gradual evolution, the appreciation of which may be obscured or retarded by the personal predominance of an individual, but the latter is rather the creation of his time and surroundings, than the "time" the creature of an individual. The history of the medical profession and its progress are not the work of personal influences, but of the advancing opinion and demands of that very profession at large. In the State of New York we have experienced many such instances. The improvement in medical teaching and mainly the lengthening of college courses from two to three, and from three to four years are due to the pressure public medical opinion exerted on the schools. They were influenced by the demands of the practitioners as represented in the large societies. We never knew of an instance in which the profession gave up its fight for improvement; but those who have lived long enough remember quite well that once a medical faculty appeared before its class of students to announce that the term of study after having been lengthened would again be shortened, and the curriculum crippled. Then we remember the constant endeavor to establish State examinations, which must be passed previous to the granting of the license to practice medicine, also the increase of the requirements for matriculation. We also remember not only that some of the medical schools lent no friendly hand, but that the profession at large, represented in the Medical Society in the State of New York, had to fight the battle of medical progress against the schools. Many may even know that representatives of a few colleges labored hard to repeal a law which appeared to them to restrict their privileges and to curtail their advantages.

It is proper that medical men should recognize the fact that their welfare rested and rests on their own exertions, and not on any established and controlling power outside. It is the democratic spirit that rules the social and political existence of our people which has been governing the action of the medical masses. No American used to self-government and self-help waits either for outside aid or outside pressure to enable him to overcome difficulties or to attain his legitimate ends, both in politics and in the interest of scientific or professional affairs. It is this democratic principle underlying the activity of our people that has been powerful in the development of the medical profession.

That explains what happened twenty-two years ago, and again this year. Both separation and consolidation were the doings of the medical men of the State. There were spokesmen, but no self-styled leader to initiate the several movements that have shaken the profession to its very foundation. Both parties were fired by what was to them a sacred principle. After nearly a generation we find ourselves on the same platform. The American Medical Association has given official recognition to the fact that cultured men must not be whipped into line by ironclad laws, but are expected to obey the rules of gentlemanly behavior on principle, and that ethics are not the outgrowth of fear but of heart and intellect. What is it to us that there are irreconcilables? A few morbid natures will tell you that you have been "snared" and "betrayed" when you feel like taking the hand of your brother from whom you are no longer estranged by principle or other interests. A few others are wise enough in their generation to bend before the storm of universal enthusiasm, and claim the credit of unification which they have opposed obstinately and bitterly.

After all, it was the medical profession which was unanimous as to the necessity of burying the hatchet which threatened to become a boomerang. Mainly to the young men is due the credit of insisting upon belonging to a united profession, not very vociferously but unmistakably. To them belongs the future, to them also the future leadership in the counsels of the profession of the State. Older men who have been through it all have reason to be satisfied with the share they took on either side, both in the battle for what they considered principle and in the reconciliation of the no longer divided parties, and are quite willing to let those work ahead who have both the strength and good will. I know I was correct when a few months ago I said to you all: "After unification we shall be satisfied that nothing will ever sever us again. For there will never be a diversity of principles like twenty-two years ago. There will be a common faith, aim, and altar. We shall take in the medical brotherhood the place which belongs to us, and work for the ideals—scientific, moral and practical—such as no other profession can realize, together with our peers all over the Union. We must or need split up into parties nevermore. It is only to the undivided and indivisible body medical that the American people will look for authoritative guidance in matters of sanitation, education and forensic legislation. What a Greek sage demanded should and may become true, viz., that the commonwealth will be advised and governed by the physician."

*Quod felix faustumque sit.* Very little is required, now that the Medical Society of the State of New York and the New York State Medical Association have unanimously adopted the reports and resolutions of the Joint Conference Committee, and the ratifications of the county societies and county associations arrive in rapid succession. An application to the Supreme Court, as the committee has promised, will be made early in May. It is a pleasure to acknowledge the services rendered by a Brooklynite for the purpose of facilitating that final step. Dr. James H. McCabe, one of your members of the Senate, volunteered to take charge and steer safely the following brief bills, which were considered desirable by many of us. They are as follows:

An Act to amend chapter three hundred and seventy-nine of the laws of eighteen hundred and eighty-five, entitled, "An Act regarding membership in the Medical Society of the State of New York."

*The People of the State of New York represented in Senate and Assembly do enact as follows:*

SECTION 1. Section one of chapter three hundred and seventy-nine of the laws of eighteen hundred and eighty-five, entitled "An act regarding membership in the Medical Society of the State of New York," is hereby amended so as to read as follows:

SECTION 1. The Medical Society of the State of New York shall have full power to elect such members as may be provided for by the constitution and by-laws of said Medical Society, said Medical Society being hereby empowered to fix and determine the qualifications and conditions of membership therein and to regulate and control its own membership.

SEC. 2. Section two of said act is hereby amended so as to read as follows:

SEC. 2. All acts and parts of acts, whether general or special, inconsistent with this act, are hereby repealed.

SEC. 3. This act shall take effect immediately.

An Act to amend chapter ninety-four of the laws of eighteen hundred and thirteen, entitled "An act to incorporate medical societies for the purpose of regulating the practice of physic and surgery in this State."

*The People of the State of New York represented in Senate and Assembly do enact as follows:*

SECTION 1. Section fourteen of chapter ninety-four of the laws of eighteen hundred and thirteen, entitled "An act to incorporate medical societies for the purpose of regulating the practice of phy-



sic and surgery in this State," is hereby amended so as to read as follows:

14. It shall be lawful for the Medical Society of the State of New York and the respective county medical societies to adopt constitutions and by-laws relative to the admission and expulsion of members and the regulation of their affairs; provided, that the constitutions and by-laws of county medical societies shall not be contrary to or inconsistent with the constitution and by-laws of the Medical Society of the State of New York, *except that each county medical society shall have full and unrestricted power of disposition and control over its real and personal property.*

SEC. 2. Section five and section seven of chapter ninety-four of the laws of eighteen hundred and thirteen, passed April tenth, eighteen hundred and thirteen, are hereby repealed.

SEC. 3. This act shall take effect immediately.

Both bills have passed the Legislature, and are in the hands of the Governor for his signature. There seems to be no reasonable doubt but that they will be signed before the expiration of the time limit. They will complete the legislative measures which were required, or considered advisable, in the interest of the medical profession of the State of New York.

### ABSCESS OF THE LUNG.

#### WITH REPORT OF TWO CASES.<sup>1</sup>

BY H. BEECKMAN DELATOUR, M.D.,

Surgeon to Norwegian, St. John's, and Long Island College Hospitals, Brooklyn.

Abscess of the lung may be primary, following a pneumonia, broncho-pneumonia, the lodgment of a foreign body, or an embolus, or it may be secondary due to the extension of an abscess from the liver or from an empyema. Aspiration pneumonia is frequently followed by the development of abscess if the original condition is not rapidly fatal. Embolic abscesses are common in cases of pyaemia. Abscesses occurring in connection with empyema, abscess of the liver, etc., will not be considered in this paper, as they are only a part of another condition and much less serious.

In cases of pneumonia in which abscess develops, the cavity is usually single, while in cases due to emboli there are generally multiple ab-

cesses. Emboli may develop in conjunction with phlebitis—femoral, iliac or mesenteric—appendicitis or infectious conditions in any part of the body, as well as in general pyaemia.

*Symptoms.*—When due to pneumonia we have the usual symptoms of pneumonia followed by those of suppuration. After the usual course the temperature may either drop to the normal to be followed by a sudden rise with regular remissions and exacerbations or the temperature of the pneumonia may gradually pass to the septic type.

While the breathing is still rapid and labored, it is not as marked as during the period of consolidation. Profuse and repeated sweating is a common symptom. The expectoration becomes much more profuse and watery. Pitchford (*Brit. Med. Journal*) reports a case in which the quantity averaged three pints in twenty-four hours. On careful examination the mucus often will show elastic fibres from the lung. The expectoration is often pink in color, due to the presence of red blood cells. It is always very offensive, but not as offensive as with gangrene.

Physical examination shows an area of dullness, diminished breathing, and the various rales indicative of cavity. Aspiration may or may not show the presence of pus. There is a certain amount of danger in aspiration, for the needle may carry infection into healthy tissues (*Lewis. Phila. Med. Journal*). The X-ray in some cases will show the abscess as a shadow in the otherwise transparent lung. This is particularly so in the upper lobes.

When due to the lodgment of an embolus, there is usually a sudden severe pain over the point with an increase of temperature and rapid and labored breathing. An area of dullness with lost voice and respiratory sounds may be made out by auscultation.

In these cases, as a result of the interference with the circulation, a cone-shaped portion of tissue undergoes necrosis and suppuration. This is usually a superficial condition.

O. Jacobson (*Zeit-f-Klin-Med.*, Bd., XV, S. 494) insists that in the beginning all physical signs may be absent and even the X-ray will reveal nothing. If there are general symptoms resembling tuberculosis, but with a distressing cough, with an absence of tubercle bacilli from the sputum and pain referred to a certain point over the chest, abscess of the lung should be suspected. In these cases clubbing of the fingers develops rapidly.

Oppenheimer (*Berl. Klin. Woch.*, Feb. 3,

<sup>1</sup>Read before the Brooklyn Surgical Society, January 7, 1904.

1902) reports five cases of pulmonary embolus following operations for appendicitis. He does not, however, state the presence or absence of phlebitis in any of these cases. In all cases the sputum was streaked with blood.

The prognosis is very grave, except in cases secondary to an empyema. A number of recoveries have been reported after operation.

We wish to record two cases, one following pneumonia and one secondary to a phlebitis of the iliac veins.

Mr. R. R., 34 years of age, German, butcher, about the end of January, 1901, was taken ill with pneumonia from which he made only a partial recovery. The cough persisted and gradually grew worse and soon was accompanied by a profuse viscid expectoration. This was always worse in the morning, when he would raise a pint or so of this viscid foul-smelling material. During the day he would raise about a pint more, but never in large quantities. He had a continuous fever and frequent sweats. Respiration was rapid and labored. There had been a very rapid loss of flesh and the patient was so weak he could not get from the bed to the chair alone.

He was seen in consultation with Drs. Bodkin and McCorkle April 7, 1901. Physical examination revealed dullness over the posterior surface of the right chest from the angle of the scapula downward for about an inch and a half. There was complete absence of vocal and respiratory sounds, but many coarse râles. Examination of sputum showed no bacilli. Temperature 102, pulse 150, respiration 32, urine sp. 1031, otherwise negative. He was removed to St. John's Hospital and operated April 9th.

*Operation.*—An incision three inches long was made downward and forward from the angle of the scapula and the seventh and eight ribs exposed. A section, one and a half inches long, was removed from each of these and the pleura opened; no adhesions found. An aspirator needle was then passed through the diaphragm but no pus discovered. The needle was then passed upward and inward into the lung tissue and pus was withdrawn. With the needle in place, the pleural cavity was protected with gauze, a small incision was made through the pulmonary pleura and then with the finger the lung tissue was broken down until the abscess cavity was reached and about six ounces of offensive pus evacuated. The cavity was explored with the finger and found to communicate with a large bronchus. A drainage tube was inserted and absorbent dressing applied. After the patient had been placed in bed the drainage tube was connected

with a longer tube, which ran into a bottle at the side of the bed, the end of the tube being kept under water all the time. The discharges collected in this bottle and did not soil the dressings. The tube was disconnected each day and the cavity irrigated with warm saline solution. After the tenth day the patient was able to sit up; the discharge had greatly diminished, the packing in the pleura, had caused sufficient adhesions to form to shut off the remainder of the pleura, so it was dispensed with and a short tube was inserted into the cavity and allowed to discharge into the dressings. The opening into the bronchus closed on the twenty-first day.

From then on the progress was satisfactory, the patient continued to gain in flesh and strength, the cough ceased, and he was discharged from the hospital on May 9, 1901.

The sinus continued to discharge for about three months. Since then he has been able to resume his occupation as butcher. During the past winter he had another attack of pneumonia, from which he made a satisfactory recovery and now is perfectly well, attending to his work.

#### EMBOLUS FROM ILIAC PHLEBITIS LODGED IN THE LEFT LUNG.

Mrs. D., a patient of Dr. C. C. A. Lange, on Sunday, July 19, was delivered, the labor being normal. The following Friday, the fifth day, she had a sudden severe chill, with rise of temperature and pain in the pelvis. I saw her in consultation on July 27, when examination revealed the uterus no larger than it should be at that time, was freely movable and there was no tenderness. A moderate inoffensive discharge was present. On abdominal examination along the brim of the right pelvis a hard and tender ridge could be felt. A diagnosis of phlebitis of the right iliac veins was made. A few days later this was corroborated by extension to both femoral veins. The limbs were greatly swollen and tenderness along the veins was present. Under hot douches and external application of heat the inflammation subsided and at the end of ten days the temperature was again normal. Then there was a sudden development of pain in the left chest; this was referred to a small area. There was immediately a rise of temperature to 102° and rapid respiration, owing principally to limited motion as breathing increased the amount of pain. On auscultation, no râles or friction sounds could be heard. A diagnosis of embolism was made and expectant treatment instituted. For a short time there was an improvement, the temperature running on a lower level than before.



The temperature again began to become irregular, varying between  $99^{\circ}$  and  $104^{\circ}$ , with no regularity. Pulse varied between 120 and 150, was weak and at times irregular, respiration varied from 24 to 32. Sweating became profuse and an exhausting cough developed. This was accompanied by a moderate mucus expectoration, streaked with blood. The loss of flesh was extreme.

Physical examination gave an area of dullness about the size of a dollar just below the angle of the left scapular, and at this point there was an absence of voice and respiratory sounds. Aspiration over the affected area gave nothing in the syringe, but on forcing back through the needle a small drop was deposited on a cover glass. Under the high power this showed some pus cells and many broken down fibres.

She was removed to St. John's Hospital and there operated September 21, 1903, two months after delivery.

*Operation.*—Under chloroform anaesthesia, an incision was made over the area of dullness and the seventh and eighth ribs exposed just posterior to the axillary line. A section one inch long was removed from each and the pleura exposed and opened. Immediately beneath a slough was found about an inch and a half in circumference and extending some two inches into the lung tissue. This was removed by forceps. The parietal and visceral pleura were adherent at this point, so that the general pleural cavity was not opened. There was little bleeding, the cavity was sponged dry and a packing of zinc gauze inserted. Patient suffered little shock.

The temperature fell at noon to  $96^{\circ}$ , reaching  $98^{\circ}$  at 12 midnight. During the next ten days the temperature remained about normal—pulse varied between 80 and 110, respiration about 30. There was a marked improvement in spirits and general condition.

On Sept. 22d the wound was dressed, the gauze packing removed, the cavity irrigated with saline and a drainage tube inserted. The irrigation entered the bronchus and caused considerable coughing and distress.

Daily dressings were done during the next week and the wound simply sponged clean and repacked, no irrigation being used.

September 29th the discharge was considerably increased, so irrigation was again instituted. This caused considerable coughing and distress.

September 30th dressing with irrigation was repeated. The dressing was done in the late afternoon and was followed by a sleepless night, due to a constant cough.

October 1st, temperature in the afternoon suddenly rose to  $102.2^{\circ}$ . This was supposed to be due to mental worry and excitement of the day due to outside causes. The next day temperature reached  $100^{\circ}$  at 4 P. M.

October 3d, again temperature reached  $102.2^{\circ}$ , pulse 140 and respiration 35. The following day the temperature only reached  $99^{\circ}$ . The patient's general condition remained fair and she was sitting out of bed part of the day.

Dressings with irrigation were still continued and always followed by more or less irritating cough.

October 5th to 8th the temperature showed a tendency to a higher level, being between  $98^{\circ}$  and  $101^{\circ}$ , the pulse gradually rising to 140. The general condition was less favorable. Physical examination showed an area of dullness above the wound. Blood count gave leucocytosis of 18,200. An aspirator needle introduced in several directions failed to disclose pus.

October 9th, the condition was one of extreme prostration, with temperature of  $95.4^{\circ}$  to  $96^{\circ}$ , and pulse almost imperceptible. No cough and little discharge from the wound.

October 10th, at 10.30 A. M., she died.

*Necropsy*, October 19, 1903.—L. D., left lung firmly adhered to parietal pleura over greater part of surface. About one ounce of fluid in pleural sac. Adhesions from external wound to abscess cavity in lung firm. Lung tissue somewhat lacerated during removal. On section, lung was found to be hepatized throughout lower four fifths, only the apex crepitating, scattered throughout hepatized area were small reddish bodies varying in size from a grain of wheat to that of a pea; apparently small emboli. Opposite external wound was found an abscess cavity about one inch in diameter, surrounded by a necrotic area about  $\frac{3}{8}$  of inch thick. There was no apparent connection with a bronchus.

Right lung was hepatized in its lower two thirds and contained emboli similar to those in the left lung, but not as numerous. Heart muscle firm and cavities apparently normal, but containing large quantity of clotted blood. Microscopical report of lung tissue, septic pneumonia.

I believe the irrigation in this case was responsible to a degree for the secondary trouble. Had we continued to simply cleanse the wound and lightly pack it, the chances of recovery would probably have been greater.

The first case illustrates the possibility of attacking lesions situated deeply in the lung and should encourage us to adopt radical measures in such cases.

## CHOREA.

BY W. L. CHAPMAN, M.D.<sup>1</sup>

Two types of chorea were formerly recognized, viz., chorea major, or imitation chorea, and chorea minor, or involuntary chorea.

Imitation or epidemic chorea is merely a matter of historic interest, and may be disposed of by simply a passing mention.

Chorea minor, or true chorea, may be defined as a functional neurosis, characterized by involuntary contractions of the voluntary muscles.

The etiology may be divided into predisposing and exciting causes. Of the predisposing causes, age bears an important relation. While chorea may occur at any time from birth to old age, it is most common between the ages of five and fifteen years. Before and after these ages its frequency diminishes rapidly with each preceding or succeeding year.

The relative frequency of males to females is generally estimated at one to three. An interesting fact in this connection is that in girls the attacks are more frequent after puberty than before, while in boys the attacks are more frequent before puberty than after.

Heredity undoubtedly has an important influence upon chorea. While the parents may not have been choreic, it is usually found in the children of neurotic parents.

Bad hygiene, mal-nutrition and anaemia may be grouped together, as they are generally co-existing and one dependent upon the other. Taken together, they are probably the most potent factor as a predisposing cause of chorea. Overwork and mental strain, such as modern methods of education necessarily impose upon school children, must be held responsible for many of the cases we meet. This is not only evident from the age at which the disease is most prevalent, but also from the fact that chorea is more common during the winter and spring months. This has been accounted for by some writers in the sudden atmospheric changes which take place during these seasons, but I am more inclined to hold the school life, with its over study for approaching examination and promotion, chiefly responsible.

Rheumatism and the uric acid diathesis have long been recognized as a predisposing cause, in fact, held by many to be an exciting one. The frequent occurrence of rheumatism with chorea and the cardiac murmurs so common in this

disease, have probably led many observers to attach too much importance to rheumatism. The cardiac murmurs met with in chorea are, in the majority of cases, purely anaemic murmurs and not due to any organic lesions of the valves. The painful joints also may in many cases be due to a neurosis instead of rheumatism. While rheumatism is undoubtedly a strong predisposing cause, it seems just to place it in the same class with the infectious and exhausting diseases which produce grave alterations in the blood.

Among the exciting causes, the most frequent is sudden emotions, such as fright, sudden joy or sorrow and the shock of traumatism. Reflex irritation from defective eyesight, naso-pharyngeal adenoids, foreign bodies in the ear, nose, etc.; renal and vesical calculi and phymosis have been supposed to be the exciting cause in some cases. Also irritation of the skin from eczema, pruritus, boils, etc.

Disturbances of digestion and intestinal worms deserve more than a passing mention. Their action is not simply due to the irritation which they produce in the intestinal canal, but the fermentation and putrefaction accompanying intestinal indigestion produce toxins which are absorbed by the system and act as irritants upon the nerve cells in the central nervous system.

The pathology of chorea is, as yet, largely speculative; many lesions of the central nervous system have been found in cases which have persisted until death, such as thrombi, emboli, hemorrhagic infarction, edema, calcareous deposits and foci of softening. But no one lesion can be found in all cases, nor in a sufficient number of cases, to designate it a distinct lesion of chorea.

Cerebral and spinal hyperæmia are the most constant pathological conditions, but this is met with in nearly all cases of severe nerve exhaustion and is not distinctive of chorea.

As far as our present knowledge can determine, chorea is essentially a functional neurosis without definite anatomical lesions. It is an irritability of the cells in the central nervous system, due to mal-nutrition or continued irritation from some chemical irritant in a profoundly altered blood.

The symptoms of chorea are, as a rule, easily recognized. It is only in the early stages that difficulty may exist. The symptoms generally come on gradually, affecting only one group of muscles. As the attack advances, other groups may become involved, or it may remain limited to the muscles first involved. In either case the

<sup>1</sup> Read at the January Meeting of the Section on Pediatrics.



symptoms are progressive: Day by day the movements become more pronounced. The muscles usually first affected are those of the face, neck or arm. A description of the movements is unnecessary, the term choreic is sufficient. In fact, the movements are so well known that many cases are brought to us with a diagnosis made by the parents. The most common statement made by the parents is that the child has been growing so fidgety lately that it must either have worms or St. Vitus's dance. If the child has been scolded or punished for its fidgets or awkwardness, the symptoms suddenly increase in severity. The diagnosis can usually be made at a glance. By the time the case is presented for treatment, it is usually far enough advanced to present the typical picture. Certain points in the clinical picture of chorea may be alluded to as they have an important bearing on the treatment. The patient is thin, pale, anaemic looking with bewildered, vacant countenance. When left alone he is listless and indifferent, but when examined or asked to do something, he becomes irritable and excited. The appetite has been gradually failing. The child sleeps poorly and complains of headaches. The urine is scanty and high colored, with a heavy sediment of uric acid and phosphates. If to this picture be added the choreic movements, the child's history of previous ailments and the family history, there is little left to question as to the diagnosis.

The prognosis should be a guarded one in all cases. The attacks vary greatly in duration and are apt to return unless the case be carefully watched and treatment persisted in for considerable time after all symptoms have disappeared. It is a good plan to render a grave prognosis even in mild cases, simply for its moral effect. The laity are apt to regard chorea as a simple nervousness which the child will outgrow, and it is our duty to dispel these ideas by informing them that chorea is simply the symptom of an ill-nourished and greatly run down central nervous system, and unless carefully managed may lead to permanent defects in both mental and physical development. By so doing we can obtain the co-operation of the parents, which is the only successful way to manage the case.

The treatment consists of hygienic, dietetic, medicinal and prophylactic measures. There are few disorders in which careful detail in all divisions of the treatment bears better results than in chorea.

Under hygienic management, rest is the most important. It is often advisable to keep the

patient in bed for the first two days. After that, confinement in bed is not cheerful treatment to an active child.

On the question of bathing there is a diversity of opinions. Hot baths, hot packs, hot air baths, cold baths and cold sponging, alcohol rubs, etc., have all been advocated. The frequency of bathing is also variously estimated. A tepid bath once a day is sufficient to keep the skin in a healthy condition, and will be all that is needed in most cases. The harsher baths should be avoided unless especially indicated. All school work, music lesson, etc., should be stopped at once. In fact, any source of mental exertion should be avoided if possible. If the child be read to, exciting stories should be omitted. The room should be as cheerful as possible, with all the sunlight and fresh air available. After the first few days, the child's playmates should be allowed in for a short time each day and everything done to make the surroundings as pleasant as possible.

Regularity is an important point in the hygiene. Regular hours for sleeping, bathing, eating, playing, etc. This should be strictly enforced with clockwork precision.

The diet should be plain and nutritious, at the same time easy of digestion and assimilation. Meats and meat soups of any kind should be avoided. The meals should be given at regular intervals and so arranged that the child's stomach secures a certain period of absolute rest between each feeding.

The medicinal treatment is generally divided into general tonic treatment and specific medication.

For the specific medication of chorea, many drugs have been advocated, but their value has probably been greatly over-estimated. Gowers tested the various drugs advocated as specifics, using each drug separately on a number of cases. No combinations were employed in order that the exact value of each drug might be estimated. The conclusions arrived at were that nearly the entire lot were practically worthless. There seems to be but one drug which has met with much success in the hands of all observers, namely, arsenic. It is generally given in the form of Fowler's solution. Beginning with small doses and gradually increasing until the tolerance is reached. It should be well diluted and given either during meals or shortly after. Some cases tolerate Pierson's or Donovan's solution better than Fowler's solution. It is advocated by some writers to increase the doses of arsenic until its

full physiological effects are produced. It is difficult to see the philosophy of such treatment. While it may rapidly reduce the chorea movements, the damage done to the digestive organs is certainly detrimental to the patient's general condition, which is the point that should receive our first attention. It is also advocated to administer arsenic hypodermically in cases where it is not well borne by the stomach. On this subject I cannot speak from any personal experience, but feel that such cases are rare, and should they arise, the pain and annoyance caused by the hypodermic injections would offset any good done by the arsenic.

The general treatment consists in improving the patient's general condition and correcting co-existing disorders. The digestive organs should be put in as good order as possible. Any source of gastric or intestinal irritation should be removed. The bowels should be regulated so that at least one good movement a day is secured. Purgatives should be avoided if possible, but if the bowels cannot be regulated by the diet and force of habit, an occasional laxative is necessary. Under these circumstances the aromatic fluid extract of cascara is my choice.

As before stated, the urine is scanty with a high specific gravity and loaded with uric acid, phosphates and urates. An increased elimination on the part of the kidneys is indicated and is best brought about by encouraging plenty of drinking water. All medicines should be well diluted, not only to prevent gastric irritation, but to increase the amount of liquids ingested. Medicinal diuretics are seldom necessary, but if indicated, small doses of acetate of potash may be dissolved in milk and administered without the patient's knowledge.

The anaemia usually present should receive attention. A great difference of opinion exists as to the efficacy of iron, but given in small doses and well diluted, I have always found it to act well. Its administration should be carefully watched and care taken not to give more than can be readily absorbed. The preparation of iron is largely a matter of choice. Personally I prefer the citrate of iron and quinine dissolved in sherry wine. Given in small doses, well diluted, during meals. If the digestion be good and the stomach will stand it, the syrup of the iodide of iron with compound syrup of hyphosphates makes an excellent combination.

If the insomnia be mild, it requires no treatment; but if severe and accompanied by much restlessness, it should be overcome, if possible.

This is often a difficult problem to solve. Chloral hydrate is well borne by children and may be administered in full doses. Five to ten grains in a cup of hot milk usually produces a good night's sleep. Hyoscine hydrobromate and the other powerful hypnotics advocated by some writers, should be withheld from children. Also the coal tar preparations. Co-existing disorders, such as malaria, rheumatism, etc., should receive their appropriate treatment. Quinine and the salicylates are well borne by choreic patients. Any source of reflex irritation, such as adenoids, phymosis, etc., may receive palliative treatment, but surgical procedures should be avoided until the choreic symptoms have subsided.

The prophylactic treatment is directed toward preventing a recurrence of the attacks. This is best accomplished by compelling the patient to continue the hygiene and dietetic measures already advised. Many of the cases in which the symptoms return have been allowed to drift back into the old habits of life which were instrumental in producing the first attack. Should this means fail and the attacks are known to return at stated intervals, arsenic may be administered a month in advance in anticipation.

To sum up. Chorea may be regarded as a symptom and not a disease. Its pathology is without definite anatomical lesions, but consists of a lowered vitality of the cells of the central nervous system, both motor and sensory (choreic patients are usually hyperæsthetic and dull mentally).

The treatment should consist in removing, if possible, any cause known to exist and then improve the patient's general condition, specific medication being of secondary importance.

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#### MEDICAL SCHOOL-INSPECTION IN GREATER NEW YORK.\*

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BY FLORENCE G. EMERSON, M.D.

Medical School Inspector, Borough of Brooklyn.

I have been requested by our President to present before the Society the method of medical school-inspection of the Health Department of Greater New York.

Medical school-inspection was established in New York City in 1894, and in Brooklyn in 1898, at the time of consolidation.

The position is under civil service, the examination embracing general medicine, physiology, and

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\* Read at a meeting of the Medical Society of the County of Kings, March 15, 1904.



hygiene, special attention being given to the diagnosis and differential diagnosis of diseases of the skin, and eruptive diseases of children.

Duties of the Medical School Inspector at the time of its establishment were, to visit the schools assigned him upon each school day of the year, examine such pupils as were sent out from the class-room by the teacher for suspected contagious conditions, including vermin of head, body, and clothing. Each pupil to be examined was given a card upon which was noted the number and location of school, name, address, and reason for exclusion. These cards were to be taken home, and the pupil was told to have his parents or guardians attend to his condition, and to return upon a given date for re-examination by the Inspector, before taking his seat in the class-room. A daily report of work done was sent to the Health Department. Cases of measles, scarlet fever, chicken-pox, and diphtheria were visited at the home by the diagnostician of the Department, and such cases were not allowed to return until disinfection had been reported.

The approximate number of schools assigned to each Inspector was five or six, and the time occupied by the work averaged from two to two and a half hours daily.

In 1901, parochial schools and free kindergartens were added to the list, and from eight to ten schools assigned to each Inspector. Each school was to be visited every day, and one school was to be thoroughly inspected. The inspector was to visit each class-room, examine all pupils as to the condition of the head, eyes, skin, throat, and general cleanliness. The sanitary condition of the building was also to be reported upon. Under an increase of salary, the entire school day was to be devoted to the work, and on no account was private practice to interfere with the time belonging to the Department.

With the exception of pediculosis capitis, Inspectors in this Borough have never been allowed to suggest a line of treatment, or to recommend any particular physician or dispensary.

On the east side of Manhattan, trachoma was found to be so prevalent that an eye clinic was established by the Health Department in connection with Gouverneur Dispensary, and children excluded for that disease, who are unable to pay for treatment, are recommended there by the School Inspector.

There have been 16,728 cases of trachoma treated there during the past year, 4,361 of which have been operated upon. It is safe to suppose that many of these cases would have become

much more serious had it not been for this clinic. Happily there is no such condition here, yet we have excluded from our schools, Public and Parochial, during the past year, 6,439 cases of contagious eye diseases. A large percentage of these were trachomatous, and there is no one clinic to which we have a right to recommend these children. Parents, in many instances, complain that they do not know where to go, consequently they do nothing, and much valuable time is lost to the pupil.

Treatment is sometimes inadequate to the condition, and in a few cases internal medication alone has been employed. Whatever the nature of the treatment, the Inspector is supposed never to criticise it, but to re-examine from time to time, and if he finds no improvement in the condition, to again exclude.

Would it not be well if one of our eye clinics in some central locality could be devoted to the work of treating the children sent from the schools by the Inspectors? If, in connection with this, there could be a department for the correction of errors of refraction and the fitting of glasses, it would be of great value to the public, of great convenience to the Inspector, and a school of rich experience to the physician who wished to perfect himself in diseases of the eye.

In all cases of trachoma, the pupil is obliged to report at the school, with a card from the physician by whom he is being treated, and in no case is he allowed to return to his class-room without such card.

During the past two years, a corps of trained nurses has been added to the work, as it has been found that after the Inspector has done all within the limits of his authority, there still remains beyond his reach a large proportion of those who most need the work. Nurses are assigned to schools in the most densely populated districts, and where the foreign element is in the majority. They visit from four to five schools daily, call at the homes of the children and explain to the parents, (often too ignorant or careless to read the card brought home by the child), the nature of the case, and the necessity of treatment. In the schools they treat such cases as are sent to them by the Inspectors, that is, those not of a nature to be excluded, and which would not be sent to a physician or dispensary by the parent, as blepharitis, ring-worm, and pediculosis. This last condition is so prevalent, and so inadequately treated at home, that a circular giving minute directions as to treatment is given to the child with the exclusion card. In

few instances, however, is this found to be sufficient, and it is the duty of the nurse to look after these cases as long as necessary. When she has completed her work on a case, it is sent back to the Inspector for re-examination and discharge. It is the Inspector's duty to see that no children who are able to pay a physician are sent to the nurse.

Experience has shown that the self-respect and pride of the majority of the children will prevent them from accepting charity when it can be avoided. There are, however, hundreds of poor children in our schools, whose condition is rendered more tolerable to themselves and to others by this timely treatment.

Another duty of the Inspector is to visit the homes of pupils where there is suspected contagious disease which has not been reported, and to report such cases, if found, to the Department.

In most cases the principals work in unison with the Health Department, but in the few where they are antagonistic, the Inspector should prove himself to be "as wise as a serpent, and as harmless as a dove," for nothing is gained by contention.

Notes or certificates are often received from family physicians to the effect that the pupil has recovered from contagious disease and may return to school, in some instances stating that the family have fumigated the apartments, under the physician's directions. It becomes the unpleasant duty of the Inspector to inform teacher or pupil, that fumigation must be done by the Health Department, and that no certificate except that of the Department, signed by the chief of the Division of Contagious Diseases, can be accepted. This implies no lack of ability on the part of the family physician, but is sometimes taken in an unfriendly spirit by both physician and family. That the laity should not understand the position taken by the Health Department is conceivable, but the physician should take a broader view, and assist the Inspector in every way in the discharge of his duty.

There has naturally been much improvement in the methods of medical school inspection since its establishment, and the detail of the work as carried on at present may be of interest to those not familiar with it. The Inspector visits each school every morning, making his first call not later than nine o'clock. He endeavors to cover his schools as quickly as possible, in order that the children who are sent out at the beginning of the session may not lose much time from the class-room in case they are not to be excluded. In some cases this occupies the entire morning.

In the afternoon he visits the school where he is to make his weekly examination.

In all the schools a room is now set apart for the use of Inspector and nurse, and to this room the pupils are sent for more careful examination than can be given in the class-room. As each class-room is visited, the pupils file before the Inspector, drawing down the lower eyelid, opening the mouth, showing the condition of the hands, while the Inspector examines head, eyes, throat, skin, and general cleanliness.

A number code is used to indicate the diseases for which exclusions are made, which obviates the recognition of the condition by classmates, and saves the pupil from much humiliation. A card is given to the teacher on entering the room, on which she writes the names of the children to be excluded, with their corresponding numbers. This card is taken by the Inspector as he leaves the room. In this manner the entire school is examined, or as many class-rooms as the time will permit. These children are then sent to the physician's room, to be re-examined separately, their exclusion cards filled out, put into envelopes, sealed, addressed to the parents, and given to the children to be taken home. Cultures are taken in all suspicious throat cases. These cultures are sent out at once, and if the Loeffler bacillus is found, the District Inspector is notified by telephone, and the case passes to his jurisdiction. In doubtful cases, a confirmatory culture is made by the School Inspector at the house. Absorbent cotton is used in examination of the eyes, and a separate wooden tongue depressor in each throat case.

Exclusion cards in use at present have a printed notice to parents warning them that the condition named is contagious, and that the child should receive prompt attention by "any physician, or at any dispensary." These exclusions are entered upon the class cards, which are left at the school. Children to be treated by the nurse are given notes to that effect, the disease being indicated by the code number.

A daily report of the work is forwarded to the Department, a carbon copy being kept on file at the school. Cases of scarlet-fever, chicken-pox and measles are seen by the diagnostician at the house for a confirmatory diagnosis before being given to the District Inspector. In mumps and whooping-cough, the School Inspector is allowed to readmit after all symptoms and physical signs have disappeared.

When a child is vaccinated at the Department, a temporary certificate of vaccination is given to him to take to the school, and a report of such



vaccination is sent to the Inspector attached to the school. At the end of ten days the Inspector examines the arm, and if satisfactory, issues a permanent certificate; if not, the child may return to the Department, or be vaccinated by the School Inspector, who may also pass upon vaccination scars of children entering school.

Whenever there arises a difference of opinion between the family physician and the Inspector, and the child is not receiving the treatment insisted upon by the Inspector as necessary in order to return to school, the case is referred to the Department and is then decided by the opinions of two out of three of the best obtainable authorities.

No Medical School Inspector is allowed to give his office address to pupils whom he has excluded, or has visited at their homes for diagnosis. Messages are frequently sent to the Department for such addresses, but under no circumstances are they given.

When a school first comes under inspection, it is often found that if thorough and conscientious work be done, only a few class-rooms can be examined in the hours devoted to the weekly work. This necessitates a longer time for the examination of the entire school, but is much more satisfactory, in the end, than a more rapid superficial examination.

After a few weeks, the school generally shows such an improved condition, that twice as much ground can be covered in the same length of time.

All of the public and parochial schools of this Borough are now covered by inspection, the public schools numbering 146 and the parochial schools 63.

The number of visits made to the public schools during the past year have been 21,738, and to parochial schools and kindergartens 7,563, with an average of 190 school days to the year.

The number of examinations made in the public schools during the year were over 3,000,000, and in parochial schools and kindergartens over 500,000. The total number of exclusions from public schools have been 17,552, and from parochial schools and kindergartens 2,583. The diseases excluded from the public schools rank as follows, in point of numbers:

Head (80% Pediculosis capitis) . .	9,307
Eye. ....	5,502
Skin ....	865
Mumps ....	501
Chicken Pox.....	160
Whooping Cough.....	110
Measles ....	64

Scarlet Fever.....	9
Diphtheria .....	7

In the parochial schools and kindergartens we find in order of frequency:

Head. ....	1,447
Eye .....	937
Skin .....	162
Chicken Pox.....	16
Mumps .....	13
Measles. ....	4
Whooping Cough.....	4
Diphtheria. ....	0

These figures show that medical school inspection is doing a great work for the health of the city.

The teachers are unanimous in declaring the physical condition of the pupils to be greatly improved since the establishment of the system. That familiarity breeds contempt, is as true in school life as in other conditions, and an outside influence, coming from so powerful an organization as the Health Department of a great city, carries with it more weight for cleanliness of person and clothing than the most strenuous efforts of the teacher can command.

The early exclusion of scarlet fever and diphtheria and prompt disinfection of class-rooms have probably in many cases prevented the spread of these diseases to epidemic proportions, while the fact that so large a number of eye cases have been treated, shows that had not been for the suppression of infection there might easily have been twice that number.

It has been said that the practice of the family physician is injured by school inspection. The only way in which the physician can feel that his work is encroached upon, is that epidemics of contagious diseases have been avoided by exclusion and prophylaxis. On the other hand, the number of exclusions show the large amount of work which has been sent in by the Inspector to the family physician and dispensaries.

There have been over 20,000 exclusions in the Borough of Brooklyn during the past year. Deducting all diseased conditions of the scalp (for the majority of which a physician is seldom consulted), we have left over 11,000 cases that have been treated by the physicians of the city, so that, on the whole, the work is a benefit rather than a detriment to the profession at large.

It is true that the Inspector is frequently approached by the pupil for treatment of non-contagious conditions; but his reply should invariably be to the effect that only conditions which are

communicable are looked after by the Department, and that in no case is treatment given.

In comparing the New York system of medical school inspection with that of other cities, we can justly feel pride in the fact that, in spite of the many difficulties which have been encountered, in magnitude of the work and amount of detail necessary to its execution, we stand as an example.

In Boston, we find that a system of medical school inspection was organized in 1894, the city being divided into 50 districts and one physician assigned to each district. It is the physician's duty to visit the schools in his district daily, to exclude all cases of contagious disease, and to report to the Health Department once a month. Cases of small pox, scarlet fever, and diphtheria are quarantined for two weeks after recovery. The Inspector visits them at the end of that time, and, after disinfection, gives certificates for return to school. The only disease for which disinfection is done are small pox, scarlet fever, diphtheria, and tuberculosis, as (to quote from the article sent me) "our corps of disinfectors is not large enough to cover the other diseases."

In Philadelphia, they have as yet no established system, but are at present working upon one, the basis of which is similar to that of Boston. They write that their methods of keeping records of the results of their work are to be similar to those of the New York Board of Health.

In Rochester, N. Y., there is no system of medical school inspection, but the Academy of Medicine has taken the matter up, owing to the fact that of 113 deaths from diphtheria last year, 62 were in children of school age, and that nearly all their cases of that disease are in children attending school.

In Syracuse there has been for the past year a voluntary school inspection by a corps of physicians who were supposed to inspect each school twice a week. This inspection was entirely under the jurisdiction of the Board of Education, which board refused to permit inspection by the Health Department. At the beginning of the present year the physicians declined to continue their work without pay, and as no appropriation was made, it has been dropped.

In Binghamton there is no system of school inspection, and as no word has been received in answer to inquiries from Buffalo, it is safe to infer that there is no such system in that city. We find in New Jersey a system of medical school inspection which was established in 1900, including examinations as to height, weight, heart, lungs, deformed conditions, vision, color sense,

etc. This inspection is under the jurisdiction of the Board of Education. The small number of schools in a town and the limited attendance makes such detailed inspection possible, the total number of physical examinations made in the schools of Asbury Park (which has the most elaborate system) for the past year, was 641.

These data gathered from a few of the cities which should stand among the first in all movements for sanitation and health, as, in at least three of them, Boston, Philadelphia, and Binghamton, there is a large influx of the foreign element, show us that New York has a most complete system of medical school-inspection.

It is true that our needs are largest, that to us flock the poor and destitute of all the nations of the earth and that we must assimilate and educate them, and it is in this that medical school-inspection is doing its greatest work. It offers at least a partial solution of the problem of what we shall do with the immigrant, who comes to our shores with his hopes, his ambitions, and his numerous dirty children. It establishes a standard of cleanliness of which they are totally ignorant. It points out the fact that filth and disease are not normal conditions in this country, and that in order to enjoy the education which the foreigner so covets for his children, they must live up to certain rules of cleanliness and decency. This soon becomes apparent in the children, and the nurses who visit the homes say that in many instances the parents gladly avail themselves, to the best of their ability, of these aids to hygienic living. You remember in David Copperfield, when Miss Betsy Trotwood saw poor dirty Davey at her door, she said to the half-witted Mr. Dick: "Oh! Mr. Dick, what shall I do with him?" to which he, after thinking deeply, replied: "Wash him." In the scale of social evolution, we find cleanliness preceding godliness.

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#### THE GENERAL PRACTITIONER AND THE QUARANTINE OF CONTAGION.\*

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BY HENRY N. READ, M.D.

This article, Mr. President, is intended merely to supplement Dr. Emerson's paper and is not to be descriptive of quarantine or the methods by which Health authorities endeavor to check the spread of infection. It is only intended to call attention specially to the importance of the medi-

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\* Read at a meeting of the Medical Society of the County of Kings, March 15, 1904.



cal profession's duties in the matter of influencing the general public, to second the efforts of physicians and health officers in carrying out quarantine methods. That the annual tax of child life contributed by large cities has been much diminished by proper quarantine is well known, and that it can be still further diminished by intelligent prevention is, too, obvious. The very important factor of engaging the assistance of the general public in carrying out quarantine regulations has been, in my belief, much neglected, and it is to endeavor to arouse and stimulate this public interest in the matter that I would call professional attention to. Not being a sanitarian, or having any expert knowledge in the matter, I have no criticism of present methods of quarantine to offer or suggestions to make about it, and how far these methods can be improved and in what manner may be left to Health officials. But there is no doubt in my mind or in that of the practical physician everywhere, I believe, that with the hearty co-operation of the general public much betterment would result. Legislators are willing enough, as a rule, to pass laws demanded by the majority of the body politic. But to what extent the general public will submit to inconvenient legal restraint is an open question, even when the public health demands it. Communities must be educated to a belief in the efficacy of sanitary laws before the laws can become effective. How is this education to be effected? Legislation cannot do it. The Press cannot do it. Neither the Pulpit nor the Public Schools can do it. The medical profession can and must do it by their own teaching and example and through the agencies mentioned above. We of the profession are the guardians and conservers of the general health of the people, and our duty to prevent sickness is fully as imperative as to cure it, and to secure the intelligent assistance of the laity in the prevention of disease we must make it clear that this assistance on its part is necessary.

To quote from Hare, "The prevention of our present most important diseases is necessarily a Governmental function." Private or personal hygiene is good, but is entirely inadequate to prevent those diseases which now cause most deaths. It is probably useful but not effective against consumption, of very little use against diphtheria or scarlet fever, useful but not effective against pneumonia and typhoid fever, ineffective against whooping cough. For protection against the dangerous communicable diseases the general co-operation of all classes of people is essential. Each person is so continuously exposed, directly

and indirectly, to other persons in all ranks of life that no person can live to himself alone; the safety of each is bound up with the safety of others, so that each individual has a vital interest in the general health and in general and special measures for the safety of the public health. The public health then must be guarded by public officials. Disraeli said, "The health of the people is the first duty of the statesman."

The centres of infection are, of course, the Public Schools. These are to a more or less extent under the control of the Health officials and their methods have to be relied on to prevent the spread of contagion here. But the family is protected by no Health official, and it is here that the family physician must do his work. The parents and guardians of all children should be impressed with the vital necessity of secluding sick children and of removing them from contact with others. All physicians of much experience in the practice of pediatrics, and especially those in charge of public institutions where children are kept, will, I think, recognize the fact that all sickness among young children is contagious. A simple case of diarrhoea or catarrhal bronchitis in a ward of healthy children will, unless precautions are taken, infect the other inmates of the ward within a short time. The fact of this contagiousness prevailing so generally, should be taught and reiterated to all those having children in their charge. The fact that sickness can be prevented by careful quarantine should be no less thoroughly taught. The knowledge that death, suffering, and ruinous expense can be prevented and effectively prevented by intelligent quarantine, would go a long way towards influencing parents in keeping their children from exposure to infection, and the "*argumentum ad hominem*" could be applied that as they wished their children to escape, they must avoid exposing others. The rules and instructions issued by the Health officer to households in ordinary cases of infection do some good, but not much. Insistence on the observance of these rules by the family physician, with the explanation of their importance, would serve to do far more good. Particulars and details which are lacking in the printed instructions can be supplied by the attending physician. All young mothers should be impressed by their family physicians not only with the importance of guarding their children from contagion, but with the equal importance of keeping their children from infecting others. The senseless and dangerous custom of exposing children to infectious disease which is ignorantly supposed to be harmless in order

that they "may have it and be done with it," as the saying is, should be strongly and at all times combatted. Mothers should be made to understand that it is not necessary for a child to have any disease, and that careful attention on her part may bring up the child without its having suffered from any of the ordinary contagious diseases of childhood. Especially should it be stamped upon the mind of every parent that no disease is harmless to a young child. I am far from possessing the ability or expert sanitary knowledge necessary to formulate the procedure which should be best in household sanitation during contagion. The attending physician here must rely upon himself in his advice to his patients and the intelligent and conscientious physician can be relied on to protect not only the family but the public. Suggestions are easily made and each person probably has his own favorite method of isolation and quarantine. The sum and substance of it all is to isolate the infected and keep him isolated until all danger of communication to others is past. It does not come within the scope of this article to touch upon the quarantine of those formidable diseases whose very name strike terror to the minds of the public, namely, variola, scarlatina, typhoid fever, tuberculosis, and others. These are subject to quarantine laws strict and tolerably efficient. It is to another malady too little regarded by the public and unfortunately too lightly esteemed by the medical profession that I would especially direct attention in relation to prevention, that is, pertusis. This insidious disease, under the guise of a comparatively harmless and unavoidable evil, causes more deaths and organic injuries among young children than many another far more dreaded affection. It is exceedingly dangerous to infants in arms, the prognosis generally is proportionate in gravity to the age of the patient, the younger the child the greater the danger, and though not so dangerous to children over three years of age few diseases even of a graver character leave more formidable sequelæ and complications. Dolan, an English authority, quoted by Osler, gives the number of deaths in England during a number of years from whooping-cough at 5,000 per one million inhabitants. In other foreign countries the percentage is as large and frequently greater. Dr. Eliza Root, of Chicago, in a recent article in the *Woman's Medical Journal* on the fatality of whooping-cough, quotes from the United States census reports that in the year 1900, 663 deaths occurred in New York from whooping-cough and 449 from scarlatina. In Chicago 141 died from whooping-cough and 373 from scarlatina. In Philadelphia

179 from whooping-cough, 182 from scarlatina. St. Louis, 33 from whooping-cough and 47 from scarlatina. Boston, 93 and 163 respectively. Baltimore, 22 and 18. Cleveland, 31 and 34. Pittsburg, 72 and 45. Buffalo, 32 and 26 deaths from whooping-cough and scarlatina respectively. About four-fifths of the deaths occur among children under 20 months of age. When it is remembered that the class of children in which this disease is most fatal is entirely unprotected as far as any sanitary or quarantine law is concerned, it should awaken a lively interest in the profession at large as to its duties towards these helpless infants. As political economics now stand, it is impossible for the health boards to do more than they are doing. Whooping-cough is a preventable disease, but the only prevention we have at present for infants is to be found in the strictest family quarantine inaugurated by the family physician and carried out by those instructed by him in the proper method. The Board of Health requires whooping-cough to be reported and forbids children who have the disease and those of the family who have not had it from attending school. But it is seen at once that this regulation does not protect the class of children that the infection is most dangerous to. Children with whooping-cough are not required to be isolated, and it is common to see these cases on the streets and in public playgrounds. The spectacle of a child with whooping-cough seized with an attack while at play running to the gutter and vomiting and then resuming play with the other children is not uncommon. Whooping-cough is highly contagious, more so than scarlet fever, and though not so easily carried by a third person, yet it is so conveyed contrary to public belief. It is upon this point that I would urge professional attention and would recommend that practitioners strongly impress the fact upon parents that whooping-cough can be carried by an immune to a young child, and that no person who has been where whooping-cough prevails should be allowed to come in contact with young children. The contagium of the disease has been shown to have been carried in clothing through third parties, and even to linger for a length of time in rooms that patients affected with this disease have been confined. The specific cause of pertusis is doubtless a micro-organism, the exact nature of which is unknown, though the studies of Hensel and Behla in Germany, and Koplik and Walsh in this country, seem to refer it to a certain bacillus found by these observers in the mucus expelled from the throat of patients at the end of a paroxysm in the earlier stage of the disease.



This bacillus is susceptible of culture in proper media and is pathogenic to mice. The period of incubation in pertussis is from five to ten days, but as this is somewhat uncertain fully sixteen days should be allowed to pass before we pronounce the child free from danger after exposure to infection. The infective period is greatest during the catarrhal stage of the disease, the first ten days, but it continues up to the fifth or sixth week, and a full two months should be the shortest period allowed for quarantine. Thorough disinfection and fumigation should not, therefore, be done until the expiration of this time.

#### CASE OF DYSTOCIA; CHILD OF 21½ POUNDS' WEIGHT.

BY CHARLES W. STICKLE. M.D.

Mrs. B., aged 45; weight, 275 pounds; height, 5 feet 7 inches. Fatty infiltration of heart, very large umbilical hernia, general condition good, eleventh maternity.

Delivered her of monstrosity in January, 1901; dead born, weight 16 lbs. High forceps, L. O. A., not much difficulty; recovery good.

July, 1902, delivered by high forceps, L. O. A., of a living child, weight 12 pounds, which died in a few hours; good recovery.

March 18, 1904, full term undecided; patient complained that she had had considerable pressure-pain for two or three days. On examination found 1½ inch dilatation of cervix. Condition good; abdomen very large. Large quantity of amniotic fluid. Left with the understanding that I should be called when labor pains began.

Did not hear from the patient, so called to see her on the morning of April 2d. Had no labor pains of consequence. On examination, nearly full dilatation of cervix, with left shoulder presenting.

Considerable fluid had escaped during three or four previous days and no movement of a child had been noticed during that time. No foetal heart sounds heard.

Advised immediate delivery. 3.30 P. M., with Dr. C. H. McVean, gave chloroform and ruptured membranes. About a gallon of fluid escaped. Complete uterine inertia.

Pushed back shoulder and brought vertex to brim of pelvis. Applied forceps. Could not engage head after trying 20 minutes, so decided to do podalic version. While version was progressing and which was accomplished easily, a brisk hemorrhage occurred and found that placenta was detached. Hemorrhage controlled by compression of uterus.

While doing version the enormous size of the child was discovered and this led to anxiety on account of the probability of dismemberment being necessary, considering abdominal section out of the question.

To bring down the foot required a great amount of traction, and was made by loops around feet. The knees impinging on brim and the inability to sufficiently elevate body in abdominal cavity greatly impeded progress.

Extraction of buttocks required 1½ hours of intermittent traction, the remainder of body being easily removed in a few seconds.

Very little anaesthetic was given during this time, less than 2 ozs., and entirely stopped when legs were extended.

A few moments after extraction of child, at which time the condition of mother was good, dilatation of left heart occurred, and notwithstanding hypodermic stimulation with strychnia, alcohol, adrenalin sol., the administration of oxygen and subcutaneous injection of normal salt, the heart walls failed to contract, and in 40 minutes the mother was dead.

The child, which apparently had been dead at least 48 hours, was 26 inches in length, 8 inches circumference of thigh just above knee, head—parieto-frontalis—16 inches, and weight 1 hour after birth 21½ pounds.

This case should be of interest to obstetricians. To ascertain some means of determining the relative size of the child before becoming so involved in course of delivery that it is unwise to change the method of procedure, is certainly the only salvation for such cases.

To have punctured the cranium or to have dismembered the body would only have augmented the difficulty owing to the size of the shoulders and buttocks and certainly would not have been advantageous regarding a gain in the time of delivery.

#### EXTREME ROTATION OF FULL-TERM UTERUS BY STRANGULATED FIBROID, NECESSITATING FORCED DELIVERY AND HYSTERECTOMY.

BY ROBERT L. DICKINSON, M.D., NEW YORK,

Assistant Professor of Obstetrics and Gynecology, Long Island College Hospital; Surgeon to Brooklyn Hospital.

Mrs. X, aged 37, patient of Dr. Bierbauer, in good general health, had one child twelve years ago. The labor at full time lasted two hours,

and was terminated by forceps. The last period, March 12th, was scanty. July 3d life was felt. In July a gynecologist twice examined her because of slight hemorrhage. At the second examination the high position of the child (which was of a size corresponding to the fifth month) up under the ribs on the left side, with what seemed to be the fundus on the right side, low down in the abdomen, caused him to make a diagnosis of abdominal pregnancy, and send her home to Brooklyn. In consultation, November 7, 1903, the child was indeed found remarkably high in the abdomen, its head lying against the left half of the diaphragm, the heart far above the naval, the breech two inches above the symphysis, the cervix above the pelvic brim. The pelvic diameters were ample. Great distension of the intestines prevented any conclusion concerning a condition on the right side which I marked "obscure" on my diagram. Dr. Bierbauer effected an external version later. November 27th the child lay with its head far above the brim, R O P. Between the uterus and the mass on the right side was a deep sulcus. This round elastic tumor measured 12 cm. in diameter, and was said to have grown rapidly within a few days. Beneath it, between it and the uterus, the round ligament ran up. This was naturally taken for the *right* round ligament and indicated the geographical location of the tumor as at the right cornu, with a broad attachment to the side of the uterus at the back of the broad ligament. It felt like a cyst. Above and behind the tumor a band to the uterus was found. It was decided that, as the patient was close to term, and the tumor well out of the pelvis, delivery by natural passages would be best attempted, with laparotomy as many days after labor as it could be put off, but that we would stand ready to open the abdomen at the first warning of trouble.

At the Long Island College Hospital the second Voorhees bag was passed at 10 A.M., November 28th, and pulled on by the nurse at ten-minute intervals for six hours, when it came away. Next morning, the 29th, after good sleep, the largest bag was passed. In the evening it came away. The cervix was soft, moderately thinned and entirely askew, its right side being pulled far above the inlet, its left side at the inlet. Nearly two inches above the inlet a thick shelf roofed the entire left half of the pelvis. Chloral and codeia gave her three hours sleep. Then, refreshed, she kneeled awhile, but pains were negative. The head would not engage,

though well flexed; the fetal heart beat 140-150, as it had for weeks. The breech lay behind the xiphoid, the uterine axis central. The tumor was becoming larger and very tender, filling the false pelvis and going up to the ribs. Therefore, in the evening, a rapid extraction was done by version. The strange phenomenon, the shelf, the one-sided and extreme development of what seemed retraction ring, so obstructed the exit of the head that the child was lost, living only an hour. On this ledge the chin caught solidly, and down upon the head the uterus settled viciously. The sequel explains why.

For three days smooth progress was made. Then pulse and temperature rose, the tumor grew to 20 cm. (eight inches) or more in diameter, and a laparotomy explained the riddle.

In opening the abdomen a flat surface of uterus presented in the incision. The tumor was seen at once to be a soft fibroid, apparently with a broad attachment on the back of the uterus. The round ligament ran up from the pubes on the right side, but the ovary was to the left of it. When uterus and tumor were delivered it was apparent for the first time that the growth was subperitoneal, squarely seated on the whole width of the lower part of the *front* surface of the body of the uterus, and that a half turn of the uterus had been caused by the mass, the dorsum facing forward. The drag on the peritoneum that attached tumor to womb had stretched it extensively, allowing free play, and producing a deep sulcus, but subjecting the return circulation to that obstruction which resulted in edema and great venous engorgement. In view of the wide attachments, vascularity, and the threatening temperature, hysterectomy was done instead of myomectomy. The stretched and flattened ovaries were left and the peritoneum carefully closed over the stump of the cervix. The recovery was febrile and smooth.

A half turn in the long axis of this uterus brought the left broad ligament taut across the lower uterine segment, producing a great, unyielding valve. Had a correct diagnosis been possible, untwisting the uterus would have straightened the canal, and a late postpartum myomectomy would have been easy. But the diagnosis of the broad-seated cyst (concurred in by Dr. Charles Jewett) made one wary of handling the tumor. The transposed round ligament clinched the error. Cæsarean section would have saved the child, but with a resultant greater risk to the mother.



## PROCEEDINGS OF SOCIETIES.

### MEDICAL SOCIETY OF THE COUNTY OF KINGS.

STATED MEETING, APRIL 19, 1904.

The President, J. E. SHEPPARD, M.D., in the Chair.

There were about 165 members present.

The meeting was called to order and the minutes of the previous meeting read and approved.

#### REPORT OF COUNCIL.

The following candidates for membership have been accepted by the Council:

- E. G. Hynes, P. & S., 1900.
- H. M. Sloat, L. I. C. H., 1887.
- J. H. Ohly, L. I. C. H., 1899.
- J. F. Crawford, L. I. C. H., 1903.
- J. C. Sharp, P. & S., 1901.
- J. C. Bierwith, P. & S., 1885.
- J. S. Read, L. I. C. H., 1902.

#### APPLICATIONS FOR MEMBERSHIP.

Applications have been received from the following:

E. Eppinger Sullivan, 604 East 24th Street, Harvard, 1903. Proposed by George McNaughton; seconded by A. F. Griffith.

P. V. Costello, 243 Euclid Avenue, Yale, 1901. Proposed by O. A. Gordon; seconded by W. C. Wood.

R. M. Rome, 226 Clermont Avenue, L. I. C. H., 1901. Proposed by George McNaughton; seconded by W. C. Woolsey.

Roderick Byington, Bay 17th Street and Bath Avenue, P. & S., 1900. Proposed by Membership Committee.

Chas. A. Lubrecht, 966 Bedford Avenue, L. I. C. H., 1901. Proposed by W. S. Simmons; seconded by W. S. Hubbard.

John H. Reb, 328 Jay Street, P. & S., 1894. Proposed by Membership Committee.

#### ELECTION OF MEMBERS.

The following having been duly proposed and accepted by the Council were declared, by the President, elected to active membership:

- Charles J. Walker, L. I. C. H., 1903.
- Theo. F. Trumpp, L. I. C. H., 1903.

#### DECEASED MEMBERS.

The President announced the death of Stephen Paul Truex, L. I. C. H., 1891; died March 31, 1904; member from 1892 to 1904.

#### SCIENTIFIC PROGRAM.

Paper: "Cerebral Localization," by Dr. Charles K. Mills, Philadelphia, Pa.

Discussed by Drs. C. A. Dana and G. M. Hammond, of Manhattan, and Drs. Pilcher and Browning.

Dr. Thomas Darlington, President of the Board of Health, made an address to the members of the Society.

The President appointed Drs. E. H. Wilson, Wm. Browning and E. H. Mayne as the Committee of this Society to investigate the water-supply of Brooklyn.

Adjourned.

WM. S. HUBBARD,  
Secretary.

### THE MEDICAL SOCIETY OF THE COUNTY OF KINGS.

STATED MEETING, MARCH 15, 1904.

The President, J. E. SHEPPARD, M.D., in the Chair.

PAPER: MEDICAL SCHOOL INSPECTION IN GREATER NEW YORK.

BY DR. FLORENCE EMERSON.

#### Discussion.

DR. J. McF. GASTON, Atlanta, Ga.: I came to New York to learn—not to tell you anything particularly, and greet you most heartily with all the earnestness and ardor of a Southerner.

I have listened with a great deal of pleasure to the papers that have been read by Drs. Emerson and Read, and have learned a great many points. I came purely with a view, as I say, to learn medical inspection of the schools here and of the methods of ventilation, light and heating, and I have found, as Dr. Emerson mentioned, that these are model schools, just as I find at the hospitals and medical colleges model institutions.

We started out a good deal later than you did in the medical inspection of schools, you having started ten years ago, as Boston did. We started only the year before last, with a voluntary

corps of physicians, such as has been mentioned in connection with other cities. Ours, therefore, does not claim any special experience or advantage that I could present to you to-night.

We have no regular daily inspection, but at certain periods we visit the schools, and we have one thing that I think might be suggested here—I do not know whether it is done here—that is, meetings of the inspectors. These should be held regularly. An organization should be effected of the medical inspectors, so that they themselves might discuss the schools and plans and report back to the Board of Education plans that would be suitable. That is the way we did, and many of our recommendations have been passed.

I have had the pleasure of visiting two of your schools, one in Manhattan and the other in Brooklyn. I have been very kindly treated by all the physicians here. I went to one school, corner of 89th street and Amsterdam avenue, New York, and found a very well equipped school in every respect. I was inspecting more on account of ventilation, heating and lighting.

As has been mentioned by the essayist of the first paper, that constitutes a part of the work that should be done, but the architects often take that up to suit themselves. The lighting has been especially well cared for in regard to schools in New York City proper, so that they have their light altogether from the left side, I believe, and no shadows, I noticed, are made at all. That itself will prevent a great many troubles of the eyes. The ventilation, I can see, is a model too.

It is very pleasing to see that fresh air was admitted from the outside by the system that is used there. The air comes in from the outside, is heated, and when I went up to the top of the building I found not much bad air even there. I say this by way of informing you somewhat of your own city. Some do not know as much about their own city as they ought to, and in Atlanta I suppose many of you would know more about it than I do, because I wait for visitors to come there to visit it myself, and I find the people here have shown me things even they have not seen before.

Then there are a great many features connected with these institutions. The plumbing down stairs is of importance—the water being constantly flowing. I did not smell an odor. I can say we have not reached that perfection in Atlanta at all yet, but we are on the line, and we are improving constantly in that respect. We do not need quite as much for a good many reasons.

As your essayist has said, there are more people here, and it is absolutely necessary that you should have rigid precautions, otherwise you would have an epidemic in a very short time.

I also took occasion this morning to go around and see one of the schools here in the Borough of Brooklyn, and see the method that has been described of having the pupils pass by, and it can be done very rapidly.

There are a few little points I would like to mention in reference to the two papers. One point that I just thought of. This eye clinic that was suggested, it seems to me, a very good idea—a central point where they can be very generally cared for and looked after, probably in the schools proper. The families that have taken the matter of fumigation into their own hands have no doubt made a very difficult problem, but it seems to have been solved sufficiently. We have that in Atlanta done also by the Health Department itself, and we have a Health officer there now, especially appointed, though we have voluntary inspectors of schools, we have this officer on a salary, and all cultures are made by him. That has been done within the last year.

I do not see any special advantage of having the inspection promptly at the opening of school, but sometimes it is necessary to exclude certain children from the schools early in the morning. In that case the principal herself could probably put the child, as has been mentioned already, where it could be seen later by the physician.

The code is a very ingenious method. I do not think we have all these diseases you have here. I do not think there are many differences between the family physician and the Health Department that require arbitration, but it is very well to have disinterested parties and agree thoroughly in arbitration as in the Japanese-Russian affair.

It never occurred to me about the vaccination being inspected as it is here. We have the vaccination by the family physician and his certificate is final, except in epidemics. Then the physicians go around and examine the arms, and we require the certificate to read "Successfully vaccinated." We leave that to the physicians themselves, and they are held responsible if it is not so. So many physicians now being on the Board of Visiting Physicians, there is a great deal of unanimity about it. A great many people from the country have never been vaccinated, and it prevents many an attack of smallpox, which would be certain to ensue. We have formerly had several bad epidemics of smallpox in Atlanta.



This inspection of the head, eyes, ears and tongue can be done very rapidly, as has been mentioned, and all diseases seem to arise from that point. They need not require thorough inspection, and at times it might be necessary to have the children take off their outer clothing and examine all thoroughly.

I am glad to know that other cities are also just taking this matter up of late years. I see no reason why Boston should not have progressed further than it has, since it started the same time New York did. I have always regarded New York, though, as ahead of everything, except Atlanta.

As I said, I do not expect to take up your time. I have learned a great many points, and Dr. Read's paper particularly was very interesting to me—the relation of quarantine to the general public—and I think we can all derive benefit, and I will take home a great many points, especially about whooping-cough. It is a dreadful disease. Lately I have had my attention specially drawn to it by having lost a patient with it. A child who had gone through successfully other diseases yet fell a victim to whooping-cough. It had an abscess on the neck, and later whooping-cough developed with the complications. If that child could have been kept away from that whooping-cough, how much better it would have been.

Recently I read a paper by an Atlanta doctor on the fatality of this disease, and I have, therefore, been prepared somewhat for what I have heard, but I never had any idea it ranked so high in fatality as a general disease. I think it very necessary to take all the precautions to prevent it in the schools.

We have times with periods of incubation very much like yours in Atlanta for these diseases. They crop out at these times. There is a certain time for whooping-cough and measles. Then we have a certificate signed by the parents. The parents have to assume a certain part of the responsibility, because we do not have the full corps you have. The parents certify the children during vacation have not been exposed to contagious diseases.

Dr. H. N. HOOPLE: I am sorry that I did not hear Dr. Emerson's paper so as to be able to discuss it. I learned from some of the remarks that the ophthalmological side of the question was touched upon by her. Unfortunately this section of the society was holding a meeting upstairs at the time the paper was read.

Speaking of the question introduced by her, I would say that so far as medical inspection has

gone, it has not covered the whole ground; but a beginning has to be made, and the important thing has been done first. Contagious diseases were met at the outset. These were most rampant and were the hardest to control, but there is still a large field for medical inspection that has not yet been covered. I refer to the field of ophthalmology, i.e., to the inspection of those conditions of the eye which are fairly prevalent among school children, which hinder their advancement and prevent their development to comfort and efficiency. Not only the eyes, but the ears in the same way. There are conditions of the eyes and ears that should be dealt with so as to prevent those impairments of efficiency that are sure to follow in later life. These, however, can be reached more *deliberately* than contagious diseases can.

When we have mentioned these two, we have not covered all the ground. It is very likely that a very large percentage of school children belong to that pitiable and suffering class of children which will be included under the general term neurasthenic; and I have not in the past of my life been a teacher without acquiring a knowledge in that respect. I have had timid, fretful, nervous children to deal with in the class-room long before I became a physician, and I am able to enter into sympathy with that class of children for whom not much provision at all has been made in the management of schools. I think there are many of our medical men who have gone through an experience similar to my own, and are equally well acquainted with the difficulties of the school children of whom I speak.

It has been stated by Somers, of Philadelphia, in a paper which was published in the *Medical News* early this last year, that fully 11 per cent. represented that class that I am referring to. If you add to that the cases of eye and ear difficulties I have no doubt that there is a percentage running up to 20 per cent. or 25 per cent. of school children that are more or less impaired in efficiency, and hindered in development (and who will be impaired in efficiency through life) through the failure of the public economies as they now exist to reach them. If in any way our Society and similar societies can inspire the bodies that have control of these things to take up this matter in such a way as to cover the deficiencies to which I have referred, we shall not have spoken in vain. The public good which we are capable of doing is not limited to the mere fact of our rendering one another more intelligent on the subject, but lies in our ability to reach

legislatures, and to come in contact with those who have control of these affairs.

Dr. J. W. INGALLS: Seven or eight years ago I had the pleasure of reading before this Society a paper entitled "The Early Correction of Ametropia," advocating the examination of children in the public schools. At that time it seemed almost a visionary thing, but fortunately, a plan something similar to that has been carried out. I want to congratulate the inspectors upon the weeding out of cases of trachoma. I have noticed in the past year, that since the practice of sending to the hospital or private practitioner the trachoma cases, it is very seldom that we get those cases of pannus and of scars that we formerly saw in comparatively large numbers in the hospitals. I have seen only one case of that sort during the past year. This is largely due to the fact that these cases are seen early and properly treated. Hence do not have the severe form which impairs the sight.

In regard to the time spent in study, it seems to me that sometimes the small children are obliged to do too much home work. If you count the number of hours that a child spends in a sitting position, if he goes through the primary and grammar school, it makes practically about one year that he is kept in what is practically a plaster cast. During a part of the time he is, of course, occupied in writing. I have taken particular notice of children from 10 to 14 years of age. In fully nine cases out of ten, when I ask them to write their names, they will hold their noses within five or six inches of the paper, and sometimes closer than that. I feel the question before us might well occupy a full evening or several evenings, because the welfare of school children is of vital importance to almost every one of us.

Dr. J. H. RAYMOND: There is one point which Dr. Emerson has brought out, which I think may well for a moment attract our attention, and that is the change of relations which exist between the Board of Education and the Department of Health since consolidation. Those of the Society who are familiar with the old Brooklyn Board of Education know that there was always antagonism between that Board and the Department of Health, and whatever measure was suggested, whether by the Department of Health or the County Society, for some kind of supervision over the health of scholars, was met with opposition. So marked was this, that whenever smallpox occurred in the old city of Brooklyn and in the old city of New York the conditions were markedly different.

Dr. Roberts, the Sanitary Superintendent of New York, told me that for a period of thirty years, during his active connection with the department, there had not been a single case of smallpox occur in the public schools of that city among the teachers or pupils. The reason for that was that the vaccinators of the Health Department of that city were always welcome. These men were systematic in their visits to the schools, and vaccinated at the public schools often enough to protect the children. During the year 1902 we had in the Borough of Brooklyn fifteen cases of smallpox occurring among public school children in one year, whereas in the City of New York there had been no case in thirty years.

When the vaccinators of the Health Department visited the public schools of Brooklyn in 1902, my recollection is that there were three thousand primary vaccinations obtained; in other words, three thousand children who had never been vaccinated, notwithstanding the law which was then in force and had been for many years, that no child should be admitted to the public school who had not been vaccinated. In many instances, when parents were called upon they presented certificates from physicians stating that these children had been vaccinated.

In 1902, the conditions were very materially changed. The Brooklyn Board of Education went out of existence, and the educational system of Brooklyn came under the direction of the New York Board, so that at the present time we have but one Board of Education for all the boroughs. The work Dr. Emerson has described tonight is the result of the hearty co-operation between the Departments of Health and Education.

Those familiar with the old method of school inspection can not but note a marked difference between the old method and the present one. The old method was advantageous as compared with no method, but it is not to be compared with the present.

The perfected method has only been in operation since 1902. Prior to that time medical inspectors were paid the munificent salary of \$30 per month, and as a rule the work was worth about \$30. When the department desired to increase the efficiency of this work, they did so by reducing the number of inspectors and paying those employed a salary of \$100 per month, and required attendance throughout the school session.

Anyone familiar with health work knows that these inspectors are underpaid, considering the quantity and quality of their work, and that is



true of many of the medical employees of the Department of Health. They are doing work far beyond what might be expected for the amount of compensation they get. Nothing but zeal and an interest in the public welfare would bring about such good work as they do, considering the amount of their compensation. But, like most city departments the Health Department is cramped for lack of money.

I do not believe it is the function of the Health Department to go much further than it has gone. It may be desirable to examine the refraction of the eyes of children as has been suggested. Although these and other defects are matters which, could they be remedied, would greatly benefit the children and be an advantage to the community, I do not believe that it is the function of the Health Department to do this. I think the function of the Health Department ends when it prevents the spread of infectious and contagious diseases, including, of course, pediculosis; but beyond this I do not think it is its function to go, and I should not care to see the duty of the medical inspector enlarged by having him called upon to examine the refraction of children's eyes or determine the condition of their hearing. I think that is a matter which does not belong to the Health Department.

Dr. Emerson has made a suggestion with reference to sending children to a central eye clinic. In considering the immense size of this borough, I think that would be burdensome upon parents; but what I think might be done would be to provide a list of dispensaries in the borough at which there are eye clinics, and have these incorporated in the notices to parents, left at the schools, or some information of that kind given, so that parents would know where to take their children instead of leaving it to chance whether they get there or not. I think it would be burdensome for parents to go a long distance, which it would necessitate if required to attend at a centrally located clinic.

Dr. Read has referred to the public schools as being the principal source of the spread of infection. I think he might add to that the Sunday schools. I am quite sure if we had some more supervision of Sunday schools than we have it would be of benefit. At the present time the pastors of churches are receiving a list of contagious diseases of the city, so that if they are alive to their opportunities and responsibilities they have the opportunity to exclude from the Sunday schools, over which they have supervision, children from infected premises. Of

course, there is no inspection of Sunday schools at the present time.

A criticism which I think is very justly made by the Department of Health of physicians is that they are not careful enough in regard to the period of time children are required to be in quarantine. Children are sent to school, or would be sent to school if they did not require the Department of Health's permission to admit them, when they are in the stage of desquamation from scarlet fever, or at a time when desquamation has not yet come on. Numerous cases have been found by the Health Department in which the physician has early ceased his attendance, and before leaving which the physician has informed the parents that the child was well from scarlet fever. Desquamation is sometimes, as you know, delayed, and it is a surprising thing to find at the end of ten days, from the first appearance of scarlet fever, physicians certifying to the Health Department that their patients are over the disease and ready to be returned to school. We all know that is too early a date for the safe return of scarlet fever or measles patients.

There are a number of admirable suggestions in the papers of Dr. Emerson and Dr. Read, and I think it would be a wise thing for the Society to refer these papers to the proper committee to consider these suggestions and to so formulate those that are worthy of adoption as that they may be forwarded to the Department of Health as recommendations from this Society.

Dr. F. EMERSON: In regard to Dr. Gaston's asking whether there were any meetings held by the inspectors, I would say that meetings are held regularly every other Sunday at present—formerly every third Saturday. Meetings of the medical school inspectors are held at the department's rooms, where the Chief of the Division meets the inspectors, and questions are brought up which occur during the week and discussed.

Dr. Gaston also spoke of vaccination by the family physician being accepted in Atlanta. They are accepted here where there can be found a date, stating the time when the child was vaccinated. As you all know, one can not tell sufficiently by the vaccination scars whether a child was vaccinated within the limit, which is four years, and, therefore, it is required that the vaccination certificates shall be dated, and if dated, it is accepted. We sometimes find that physicians send certificates saying that children are successfully vaccinated on the day on which the certificate was written.

In regard to the Board of Health taking up errors of refraction. That was not the idea which I intended to convey. My idea was that it might be well if we had the right to send these children to a dispensary, or to some physician, where the error of vision could be corrected, because we find so many teachers come to us complaining that such and such a child can not see, and we find the children very often are accounted stupid. They do not get along in the classes because of these errors of vision. We have no right to exclude these children, because we must confine ourselves to contagious diseases. The suggestion I wanted to make was, that perhaps it would be well for us to have the right to send such children out for proper treatment—not necessarily by members of the Board of Health.

I do not know there is anything more I have to say except to thank the members of the Society for the kindly interest they have shown in my attempt.

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## THE BROOKLYN GYNECOLOGICAL SOCIETY.

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STATED MEETING, FEBRUARY 5, 1904.

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The President, W. E. BUTLER, M.D., in the Chair.

HENRY C. KEENAN, M.D., Editor.

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### REPORT OF CASE: TUBERCULAR SALPINGITIS; DEATH 42 HOURS AFTER OPERATION.

Dr. J. O. POLAK: This patient was 30 years old and up to puberty was in good general health. From puberty she had premenstrual and comenstrual dysmenorrhea; the premenstrual pain was referred to the left side and was very intense, necessitating during her unmarried life the discontinuance of her occupation during each period. After marriage she was not so situated that she could remain in bed at each menstrual epoch, and so struggled around as best she could.

I first saw the patient in June of last year, at which time she had the following conditions: A large antiflexed, hyperplastic uterus and long cer-

vix—the cervix and body were both antiflexed. The left adnexa were exquisitely tender, but there was no gross enlargement. The appendix was found very tender, and when rolled under the finger was exquisitely sensitive. She was very anæmic. No valvular lesion of the heart could be determined, although she complained of occasional attacks of syncope. The pulse was easily compressible.

The patient was not seen again until a week ago, when she came to the office and said she had decided not to suffer any longer from this pain, as it had become unbearable. She entered the hospital on Monday. On Tuesday was operated in the following manner: The vagina and vulva were carefully cleansed before she came to the operating room and again on the table, the cervix was brought down and uterus entered with very considerable difficulty, and a dilatation and curettage made. The uterus was about  $3\frac{1}{2}$  inches deep and there was marked hyperplasia.

The abdomen was then opened, and the broad ligaments and the tubes found, particularly on the left side, studded with minute miliary tubercles. I should have said that she had also complained of indefinite intermenstrual abdominal pain. There was free fluid, sero-sanguineous in character, in the abdomen. Both tubes and the right ovary were removed. The left ovary was found to be perfectly normal and was not disturbed. The tubes were excised at the uterus and the stumps turned in.

The appendix was very long, extending well down into the pelvis, and measured 6 inches. It was removed and the stump inverted. The patient came off the table with a pulse below 80 and in good condition. There was fluid left in the abdomen, which I criticize myself heartily for doing at the present time, considering that the case was tubercular.

On Tuesday, at 12.30, she was taken from the table, and on Wednesday morning, at 8 o'clock, she had a temperature of  $102^{\circ}$  by rectum and a pulse of less than 100. There was very little distention and no vomiting. At 1 o'clock on Wednesday she vomited twice, the only vomiting she had from the time of operation until the time of her demise. The pulse at that time had risen from below 100 to 128, with a temperature by rectum going to  $104^{\circ}$ . At 6 o'clock the temperature had risen to  $106^{\circ}$  per rectum, with a pulse of 149. The patient looked toxic. There was hardly any distention. There was, however, slight dullness over the appendicular region. There was no vomiting and she passed quantities of gas and



some fecal matter. She was infused in one arm with 30 ounces of salt solution, which improved the character of the pulse materially and relieved the thirst. Following the infusion she passed 14 ounces of urine, making a total of 23 ounces of urine the first 24 hours.

Nevertheless, the temperature went up. At 11 o'clock Wednesday night, within 36 hours of the operation, she had a temperature of  $107^{\circ}$  per rectum, with a pulse of 152. She was infused again in the other arm with 30 ounces of saline solution. The pulse improved considerably for a couple of hours, then she continued to go to pieces. She died 42 hours after operation with a rectal temperature of  $107^{\circ}$ .

I made the autopsy two hours after death. The omentum was slightly adherent to the abdominal wound, but no other adhesions were found. Both broad ligaments were clean and there were no adhesions about the appendicular region, and the peritoneal sac was filled with a sero-sanguineous and sero-purulent secretion—the dirty, gray secretion that we get in acute streptococcus infection.

I report this case because of its rapidity. The patient had a normal temperature per rectum on the morning of operation. The question is, What was the point of entrance of infection? It hardly seems possible a streptococcus, even as active as the infection seems to have been, could develop and play such havoc in 42 hours. She was not markedly anæmic, though it was not a bad case for operation from general appearances.

#### *Discussion.*

DR. R. L. DICKINSON: It is a rule that low vital resistance always goes with low haemoglobin. Cases operated upon with a haemoglobin percentage of 30 to 35 have shown a lack of resistance to intestinal or other toxins which is alarming. A patient with a perfect wound, with a good kidney action, with very little blood lost during the operation and very little shock, afterwards will develop a profound intestinal toxæmia and apparent lack of resistance that is astonishing; and I wonder whether the Doctor's case was anything of that kind.

In leaving fluid in the abdomen I sometimes feel unhappy. The method in which the ordinary nurse finds the temperature of the saline infusion is a source of danger on account of the doubt that the thermometer used is sterile. She says it is all right, since it has been soaking in bichloride, but it is a question whether the wooden framework is even then sterile. I do not doubt

but that the fluid used in Dr. Polak's case was sterile, but that is one source of danger.

DR. G. McNAUGHTON: I am sorry to hear this history, but it is a little bit consoling, because I lost a case this winter unexpectedly. The patient, a young woman, was in perfectly good condition with the exception of occasional gastric disturbances. She was taken to the hospital suffering with what seemed to be a well marked case of appendicitis. As she had had previous attacks it seemed best to advise removal of the diseased organ.

When the appendix was brought into view it was not found acutely inflamed. There was plenty of evidence of previous inflammation, but it was such an appendix as we often find, bound down throughout its whole extent by adhesions, and must have caused considerable trouble. The appendix was removed in a few minutes, no fluid introduced, and yet that girl died in five days. We made a post-mortem examination and found about the same condition as Dr. Polak described. I have not been able to explain it, but I might offer the following as a possible explanation: I have seen in consultation during the last four weeks three cases of pneumonia in which there was tremendous abdominal distention, as so far as I know there was no trouble in the peritoneal cavity except distention. There may have been some particular atmospheric condition which infected the peritoneum, possibly the bacillus influenza. These cases recovered. The pain preceding the pneumonia was abdominal in each instance, yet they were well marked cases.

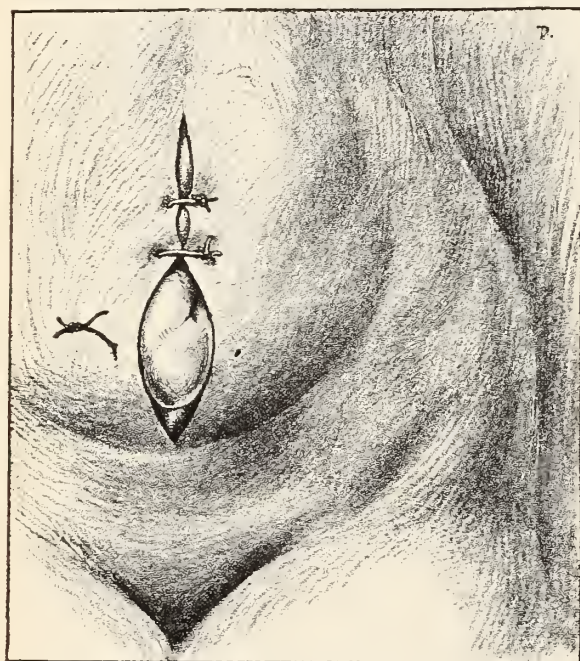
I would question the wisdom of the introduction of so much saline in the case mentioned by Dr. Polak—30 ounces. She lost no blood, there was no loss from her intestinal tract, and it seems to me the addition by infusion of 30 ounces is putting a good deal on the blood vessels, and putting perhaps a little more on that heart than it ought to be loaded with. I should rather inject half that amount.

DR. J. O. POLAK: The point of that was simply blood washing in sepsis, depending upon increased elimination by the kidneys to carry off the toxins. It took an hour to infuse the 30 ounces. In this time the heart usually accommodates itself to the increased amount of fluid in the blood. This patient did not have the accustomed chill which happens when a large infusion is given, and if you infuse slowly they do not have it.

I think the point Dr. McNaughton made is a very good one—the blood vessels do need some-

thing to resist the increased pressure of the infusion. The idea was entirely a matter of dilution of this toxæmia.

I had a patient about eight months ago who went just the same way. It was a perfectly clean hysterectomy. I was out of town the following day when the symptoms of sepsis occurred. Thirty hours afterwards Dr. Pomeroy made a cul-de-sac incision and emptied the peritoneal cavity of two quarts of dirty serum. She died 1½ hours after the incision. One year previous to that I had a case of acute infection dying in 50 hours after a laparotomy. I had opened the abdomen to put in a Mikulicz. This time I decided I would not do anything but attempt to dilute the toxins by blood washing.



LACK OF ADHESIVE EXUDATE IN WOUND.

Dr. R. L. DICKINSON: One of the most vigorous women I ever knew developed a huge pair of pus tubes. They were slow in their development. It was presumed that they were present long enough to render the pus sterile, but as they were continuing to grow, and one of them rose nearly to the navel, they were amputated. In that case, so far as we know, the peritoneum was not soiled. Dr. Skene said it was the largest tube he had ever seen. There was no culture taken, because it was before the days of operative cultures. The same tremendous onslaught of streptococcus peritonitis occurred, with a great outpouring of serum into the peritoneum, in a woman with as high resistance and as fine general condition as one could possibly see. These are terrible outbreaks.

REPORT OF CASE: UTTER LACK OF ADHESIVE EXUDATE IN AN ABDOMINAL WOUND AFTER CAESAREAN SECTION; OVARY TRANSPLANTED.

BY DR. ROBERT L. DICKINSON.

Mrs. L. H., 24, Finn, looks well. She walked at nine months, then was crippled by disease of the left hip joint until her twelfth year. Cuts on her hand have taken many weeks to heal. She may be over time. The membranes broke January 22, 1904, at 9 P. M., but she had some pains for six days. Three applications of forceps were made on a head high above the brim. She was sent in to Brooklyn Hospital and operated on at 10 A. M. Pulse 100-120, temperature 99. The pelvic measurements were: crest of ilium, 10¼ inches (25.5 cm.); spines, 9 (22.5); ext. conj., 8¼ (21); right external oblique 9 (22.); left external oblique 7 (17.); transverse of outlet, 2¼ (6); transverse between ischial spines, 2¼ (6); diag. conj., 3¼ to 3½; true conjugate, 2½ to 2¾. The abdomen bulged in two bulges, the contraction ring crossing it transversely above the navel; the round ligaments showed the placenta to be posterior and high; the fetal heart was good. The uterus was turned out, the broad ligaments clamped and the child delivered from green-stained membranes in 65 seconds, the uterus gotten away inside of five minutes. An ovary was saved and sewed into the cervix stump, as the broad ligament was too long and varicose to use as its pedicle. Owing to a mistaken order the patient was placed in a cold bed. She developed some bronchitis. Her hemoglobin was 70%. On the sixth day I dressed the wound. The serious oozing had been as usual. About the edges was no redness; between the edges no hint of adhesion or granulation. The edges looked as if cut half an hour before. On the seventh day she coughed hard and long, without medicine. On the eighth day I found a part of the wound gaping. The layer sutures of No. 3, 20-day, Van Horn gut, were gone. One of the two silk-worm tension sutures held, and the two silkworm skin stitches. Bare bowel, dryish but unreddened, played up and down, at the skin level, in one two-inch gap, and showed at other spots. Remembering the dangers of secondary suture where the intestines protrude and the safe union from strapping alone, I drew the parts into apposition with many ¼-inch zinc oxide plaster strips. [On the seventeenth day there was good union, on the



twenty-seventh a little exuberant granulation.] I fear that ventral hernia will call for later operation.

On the ninth day there was a two-degree temperature rise, and one other short elevation, relieved by a vaginal cleansing.

The nine-pound child has done well.

#### *Discussion.*

Dr. J. O. POLAK: That is very interesting about that wound. I have had two experiences seven years apart of wounds not healing and of finding the intestines at the first dressing, on the abdominal wall. Both of these cases were immediately sutured and both lived. One was a case of pus tube that healed up with apparently primary union, that is, went along aseptically. When the dressing was taken down at the end of nine days the intestines were found between the edges of the wound, causing no disturbance in temperature, as in Dr. Dickinson's case.

The second was a case occurring last November where the patient had vomited persistently and an ileus occurred. The dressings were taken down, a kink of the ileum was found in the wound and the wound opened. The case was sutured and she recovered.

I suppose vomiting in both cases broke the sutures, so I have made it a rule lately that in wounds over 3 inches long, to use at least two or three retention sutures through all layers.

#### REPORT OF CASE: ELECTIVE OPERATION OF CAESAREAN SECTION IN A WOMAN WITH AN OBLIQUE OR NAEGELE PELVIS.

Dr. J. O. POLAK: This case was that of a girl 24 years old who has had hip joint disease from nine months of age. The left hip is ankylosed in flexion and adduction. The dent of the acetabulum protrudes into the pelvis and encroaches on the right oblique diameter, shortening it to less than 3 inches. The left oblique is ample. The position of her thigh made examination extremely difficult. The true conjugate was only lessened  $\frac{1}{2}$  inch. The diameters, so far as the crests and spines were concerned, were not very materially influenced, but in measuring from the anterior superior spine of one side to the posterior superior spine of the other and vice versa, we get irregular measurement confirming the diagnosis of Naegele or Oblique pelvis.

This case was referred to me when she was but  $3\frac{1}{2}$  months pregnant, and I advised the physician that it was possible, I thought, through the pelvis to deliver the child prematurely, but

I could not give any assurance of a living child. As she was very anxious to have this child, she elected to have a Caesarean section. Yesterday I did the Caesarean operation upon her, and delivered her of a living child without very much difficulty.

The head at seven months could be crowded down into the right oblique diameter, but at eight months it wouldn't fit. I did not examine her in the interim between the seventh and eighth month. The head at the time of the Caesarean was above the brim. She was a primipara and had had intermittent uterine contractions and the premonitory signs of labor ten days prior to the operation, showing that undoubtedly it could not get into the brim, because I think it is a safe rule in primipara, but if the head is not engaged at the time of labor, there is a disproportion between the head and pelvis or a malposition.

In this case I made a high uterine incision. In the last case I did I thought I was going very high, and yet I got very close to the bladder, and I am not just sure where to incise the uterus yet and not get too close to the bladder. I started the abdominal incision about two inches below the umbilicus, running two inches above the umbilicus. A tourniquet was thrown around the uterus for temporary constriction, then the uterus was shoved through the incision in the abdominal wall. As the child was withdrawn I started the incision in the uterus near the fundus, and yet I found my incision running down to the bladder attachment to the uterus. The tourniquet was let up, and the assistant controlled the uterine arteries without difficulty by pressure. The uterus was sewn up with interrupted chromic gut sutures and the peritoneum run over that with a continuous catgut. The tubes were removed and the ends turned in. So far she has done very well.

The interesting part of this case is the extremely good contraction and retraction that uterus is making, so much so that the lochia in 24 hours has practically changed in its character.

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#### THE BROOKLYN SURGICAL SOCIETY.

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REGULAR MEETING, JANUARY 7, 1904.

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#### SIMULTANEOUS FRACTURE OF BOTH PATELLAE; SUTURE; CURED.

Dr. WM. MADDREN presented a case of simultaneous fracture of both patellae, due to indirect

violence. Open operation was performed five days later, and the patient recovered, with osseous union and restoration of function. The patient was a woman, twenty-eight years of age. Patient, while going down steps on June 28, 1903; upon reaching lowest step, suddenly fell forward without apparent cause, except weakness in the knees. She struck both knees upon the ground, was unable to rise and felt great pain in both knees and loss of motion of legs. She felt something crack in falling. Examination showed transverse fracture of both patellae, upper and lower fragments easily felt, crepitus obtainable, sulcus between upper and lower fragments, considerable swelling of both knee joints.

No attempt was made to approximate the fragments on account of the effusion and swelling. A tight bandage was applied to both legs, from the ankle to the middle of the thigh; sponges were placed on either side of patella and on top, held in place by a closely fitting bandage. Cold water was then poured on knee joints, causing sponges to swell and maintain firm and equable pressure in the hope of limiting the effusion in knee joints. A well padded posterior "L" splint was applied to both legs, and knee joints immobilized. The patient was transferred to the Kings County Hospital the fifth day after injury. Operation by Drs. William and William Harvey Maddren and staff.

A U-shaped incision, with convexity downward, was carried from over the outer condyle, well down on the ligamentum patellae up onto the inner condyle through the integument and superficial tissues, and the joint fully exposed. There had been considerable tearing of the aponeurotic tissues at the sides of both patellae, both joints containing much blood clot and effused material. The joints were thoroughly washed out with sterile salt solution. The fringe of the capsule overhanging the upper fragment of the patella was trimmed off, and the fractured surfaces accurately approximated and held firmly together, while six No. 3 chromic gut sutures, three on each side, were passed through the tendinous capsule and tied. The torn aponeurotic superficial and fibrous tissues were sutured with fine chromic gut. The external incision was closed with silkworm gut. The whole leg dressed and encased in plaster of paris.

A fenestrum was made over each knee, and at the end of ten days the silkworm gut sutures were removed. Primary union was present. At the end of six weeks the dressings were removed, and gradually increasing passive movement of

the joint made. A posterior splint was worn for a few weeks afterward. The patient has been urged to use her limbs reasonably.

#### ABSCESS OF THE LUNG.

DR. H. B. DELATOUR read a paper on this subject, and reported three cases upon which he had operated. See *Brooklyn Medical Journal*, present issue, p. 171.

#### ABSCESS OF THE LUNG.

DR. W. H. RANKIN reported two cases of abscess of the lung. The first was the case of a man, J. Y., age 18, who was admitted to St. John's Hospital on October 6th, when he gave the following history: He was a young man of good physique, strong, healthy parentage, a Swede by birth, and a carpenter by occupation. Two years ago he had a slight attack of scarlet fever, from which he made a rapid and satisfactory recovery. Three weeks previous to his admittance he was seized with an attack of pneumonia, from which he suffered much pain and delirium for several days.

On examination, his temperature was  $102.4^{\circ}$ , pulse 135, respiration 38. His left lung was full, apex prominent and movement markedly restricted. The apex heart beat was displaced downward. There was little or no vocal fremitus either in the front or the back of the left side of the chest. Over the whole lung there was slight rough bronchial breathing, except at the apex and in the lower lobe. He was then aspirated and some thick bloody pus drawn in the syringe. Under nitrous oxide gas a portion of the seventh rib was removed and the pleura opened, when several ounces of thick, creamy pus escaped. On exploring the pleural cavity with the finger a considerable piece of gangrenous lung tissue was withdrawn, a further escape of pus from a lung cavity noticed. This was drained and the man returned to the ward. The following morning the pulse, temperature and respiration had fallen, but he still suffered much pain, and his general condition had not much improved. After six days he seemed little better than when he was admitted, although there was rough bronchial breathing in the lower lobe and less dullness.

The apex still remained full and rounded and quite flat on percussion. Gas was again administered and pus found with the aspirator in the axillary region. While exploring the opening in the pleura more carefully the reporter found the pus in the lower part of the lung had been



encapsulated. The adhesions were separated with the fingers, together with a sound, when a further discharge of pus occurred. For a few days he improved somewhat and the breathing in the lower part of the lung became broncho-vesicular in character.

On the tenth day he was seized with a persistent cough when he expectorated profusely, and in gushes, a greenish-yellow pus, that had a very offensive odor, together with fragments of lung tissue. Thereafter the symptoms gradually cleared up and the young man returned to his home with the wound closed and feeling quite well. This would seem to be a case in which the empyema was secondary to the two separate abscesses in the lung. It is of interest to note that the vesicular breathing returned in the apex and there was not retraction of the pleura in that region.

#### ABSCESS OF THE LUNG; PYEMIA; RECOVERY.

DR. W. H. RANKIN also reported the case of a woman, Mrs. S., age 27, who came into St. John's Hospital October 28th, and gave the following history:

Her previous health had been good. Since the birth of her last child, two years ago, her monthly periods had been regular and normal, until about four months before her admittance, when she had ceased to menstruate. After missing three periods she commenced to take some pills to bring on a miscarriage. A few days thereafter she commenced to flow. On October 18th she was curetted, and again on the following day. Nine days after this, or at the time of her admittance, she was having chills; her temperature was  $104.4^{\circ}$ , pulse 132, respiration 36. On examination, it was found that she was bleeding quite freely, and the uterus was large and painful to the touch. An anaesthetic was administered, when the uterus was emptied and packed with dry iodoform gauze; a posterior section was done and a gauze drain inserted. For a few days she was better, the temperature and pulse being considerably reduced.

Five days after the operation she was seized with a severe chill, the pulse rate and temperature went up. After a careful examination of the pelvis no further trouble could be made out in that region, but there was a pronounced systolic murmur found over the heart. She now commenced to run a temperature ranging from  $106^{\circ}$  to  $108.5^{\circ}$ , with a very rapid, feeble pulse, almost daily, for several days. A cough soon developed and a small area of dullness was noticed in the

left lung. A few days after the left lung became infected, the right lung developed two separate areas of infection, and the woman's condition became very grave.

On the eighteenth day a small mass appeared in the right groin which was painful and tender to the touch, and which conveyed an impulse on cough. This was opened under cocaine and about two ounces of offensive greenish pus evacuated. In the meantime she was being sustained by stimulants and saline infusions in the veins, under the breasts and in the rectum. Leucocytosis, 16,000.

The infection in the right lung extended to the base, involving the pleura, while the diseased area in the left began to clear up. On the twenty-fifth day an abscess of the lung ruptured in the bronchial tube and she expectorated some offensive greenish pus, which continued for several days. However, she now commenced to improve; the temperature, pulse and respiration again went down, and food was soon taken with a relish.

As the patient's strength began to return she was gradually elevated with pillows, with very marked benefit in the absorption in the lung.

By this time the trouble in the pelvis had cleaned up, the wound in the groin had closed, the murmur had disappeared from the heart, vesicular breathing had returned in the left lung, and there was broncho-vesicular breathing in the base of the right lung. This patient is now walking around the ward and will be allowed to return home very soon.

#### ABSCESS OF THE LUNG.

DR. T. B. SPENCE presented a patient who had been sent to the Seney M. E. Hospital on April 5, 1903, by Dr. Erdman, with the history of a right lobar pneumonia eleven weeks before that. At the time of defervescence his temperature failed to come down to normal, and he later on developed an expectoration of muco-purulent sputum. He lost flesh and strength and got in rather a wretched state. At the time Dr. Spence saw him, he was supposed to have an empyema; and it looked as though that were the condition. The rather profuse expectoration was not taken into sufficient account.

An aspirating needle was inserted, and eight ounces of green pus were drawn off. In view of the great difficulty the patient had in breathing, it was thought best not to give a general anaesthetic for the resection of a rib, so it was done under cocaine anaesthesia.

When the chest was opened no more pus was

found; and the pleura was found to be clean. A finger was inserted and passed around as far as one could reach without finding any evidences of infection in the pleural cavity. Because of the very severe pain the patient was experiencing, it was not thought wise to explore the lung itself, but a drainage tube was put in the pleural cavity in the hope that the abscess cavity, supposed to be present, would break through the remaining portion of lung tissue. On the second day it was supposed that this had occurred, because there was a purulent discharge through the tube, but that soon ceased.

The patient continued to have this profuse expectoration; the temperature came down, the respiration became better. In two weeks' time his temperature was practically normal, and he was allowed up and continued to improve. The tube was taken out in about two weeks from the time it was inserted. The sinus healed, and the patient was discharged at the end of five weeks with a very moderate expectoration.

One and a half months after he was last seen Dr. Erdman again referred him to the speaker, and he then gave a history of a tender tumor at the site of the right nipple that had been there for ten days. This was found to be fluctuating, and was made more tense upon the patient's coughing. His condition became bad again, he was thin and pale, the cough became more troublesome and the expectoration more profuse. At this time it was thought wise to give chloroform.

The incision was made over this abscess at the nipple, and it was found to communicate with the chest cavity, as had been supposed. Dr. Spence was able to insert his finger between the ribs and down to the bottom of the abscess cavity. There a rib was resected, a drainage tube was put in, subaqueous drainage instituted, and the patient began to improve.

On the second day, with forcible expiration, bubbles came out of this tube into the water in the bottle. On the second or third day after operation the expectoration almost entirely ceased. On the tenth day the subaqueous drainage was stopped, and on the twelfth day the patient was up. The cavity was slow in healing, and it was not until the end of eight weeks that it was entirely healed. The patient has been well ever since.

#### ABSCESS OF THE LUNG.

DR. O. A. GORDON reported a case of abscess of the lung following pneumonia which he had seen within a few months. The patient had been

suffering from that condition for a number of weeks and was very much exhausted.

There was a small fluctuating point in the axillary line at about the fourth or fifth intercostal space. He advised an incision and drainage at that point, in order to allow the patient to regain some strength before resecting a rib. This was done and considerable pus evacuated.

After several weeks he heard from the family doctor again, that while the patient had improved somewhat, he evidently could not recover, as good drainage was impossible—the ribs coming very closely together—and he was unable to maintain drainage through the rubber tube. A weak cocaine solution was used, but before the operation was completed the patient died on the table. This was a case of undoubted abscess of the lung. The death was rather unexpected. Just why the patient died the speaker was unable to determine, unless it was from the shock of the operation. This patient had the typical expectoration of abscess of the lung—fetid and in very large quantity. The pleura had become adherent to the chest wall, and nature was attempting to evacuate through the intercostal spaces.

#### ABSCESS OF THE LUNG.

DR. J. S. WIGHT reported the case of a patient who gave the following history: Unresolved pneumonia and empyema, with delayed operation until an opening appeared in the chest and discharge took place. Subsequently the ribs were resected on the left side. The X-ray picture showed the contracture of that side of the chest.

He saw the case the 7th of last May, and the physical signs were positive of abscess of the left lung. The right side of the chest had been carefully gone over by Drs. Janeway and McCorkle with positively negative results. The X-ray picture shows an abscess cavity in the left lung. The needle was placed about the angle of the left scapula posteriorly, and, entering the abscess cavity, pus was withdrawn. Ten or twelve punctures had been made before the X-ray picture was taken without finding pus. The man died in twelve hours from asphyxia. He rapidly developed an interstitial emphysematous condition after the operation. The needle was followed in by the blade of the knife, and the drainage tube inserted between the ribs. The ribs were not resected, and there was not room enough for the escape of the discharge. The autopsy revealed the abscess cavity and tubercular deposits in the other lung. The lung was adherent to the chest wall.



## ABSCESS OF THE LUNG FOLLOWING APPENDICITIS.

DR. W. B. BRINSMADE reported a case upon which he had operated for appendicitis at St. John's Hospital. It was a case of appendicitis with abscess and a large quantity of pus, which was evacuated in the usual manner. The patient did fairly well for four or five days. Then the wound ceased to drain, and it was opened again with the fingers and some more pus evacuated from the cavity. At the end of two weeks the drainage had been entirely removed and she was doing well until she developed a cough two weeks after the original operation, and the cough was accompanied by the expectoration of large quantities of pus. This lasted for some time. He aspirated in a number of places to find pus, but was unable to do so, when one day he discovered dullness in front between the fifth and sixth ribs beside the sternum. He aspirated here, found pus and evacuated quite a quantity. The abscess in the lung was drained in the usual manner. She made a good recovery and left the hospital.

*Discussion.*

DR. H. B. DELATOUR said that we must draw a distinction between cases of empyema, either general or circumscribed, which subsequently rupture into the lung and cause an abscess or a suppurating tract through the lung communicating with a bronchus, and cases of abscess of the lung, in which the abscess is situated solely and absolutely in the lung and which started there.

The case presented by Dr. Spence may easily have been a circumscribed pleural abscess in front, which might not have been reached by the finger at the point of the original operation. The first incision was made very low down. He was quite positive that the first case presented by Dr. Rankin was one of empyema with secondary rupture into the lung. Dr. Brinsmade's case, likewise, the speaker said, was a pleural infection primarily, and the case presented by Dr. Wight gives a history of empyema as the original lesion. These conditions are different from a true abscess of the lung, as he had tried to describe it.

Dr. Delatour said that he referred to the X-ray in his paper. He had also referred to aspiration as a means of diagnosis as one which is not safe. There is this to be said: these patients rapidly get into a physical condition, which makes it impossible to do with them always as one would wish. At the present time we all have not at our disposal in the hospitals and in private houses the means of taking X-ray pictures, and while it has been demonstrated a number of times that

abscess cavities in the lung can be shown by the X-ray, we will not be able to use it as often as we would like, because these patients can not be transported.

DR. J. S. WIGHT said that he had been able to make a diagnosis of abscess in the apex of the lung in a case reported some time since, where the patient inhaled a small tin whistle, sucking it down into the lung. The X-ray was used to locate the foreign body. The picture revealed a cavity in the apex, and the whistle was subsequently coughed up. The patient got well without operation.

DR. J. B. BOGART was glad to know that we do not need to be in doubt about the diagnosis of these cases.

DR. T. B. SPENCE said that he did not think one could get a more typical history of abscess of the lung than his case had presented, in spite of the fact that he did not make the diagnosis before operating. He did not think that any one would question that that was a case of abscess of the lung. He resected exactly where he aspirated, and he knew that he had aspirated through a portion of the lung.

## DIABETIC GANGRENE OF THE LEG IN A MAN OF 74 YEARS OF AGE; AMPUTATION OF THE THIGH; RECOVERY.

DR. W. H. RANKIN reported a case with the following history: F. S., age 74, German, was admitted to the service of Dr. Brinsmade in St. John's Hospital, August 18th, suffering from gangrene of the right foot. He was passing great quantities of urine, which gave the following analysis: sp. gr., 1044; sugar, 10 per cent.; diacetic acid, negative; butyric acid, negative; albumen, trace.

The disease commenced in the great toe early in July, at which time it was amputated, but the wound would not heal. At the time of his admittance it was found the gangrene had extended to the ankle. Under chloroform anaesthesia the leg was amputated by Dr. Brinsmade, at the middle and lower thirds of the thigh, leaving long, loose flaps. The bone was covered with periosteum and muscle, which were sutured together, the skin being approximated with zinc oxide adhesive straps over the drainage.

The patient sustained little shock and rallied promptly from the operation. There was little sloughing and the wound healed slowly but completely. The arteries were found to be very hard and thick, as indeed they were all over the body.

The interesting point in this case would seem to be the prompt and uneventful recovery in this man seventy-four years of age, although he was suffering from marked atheroma and diabetes of a very grave form, passing large quantities of urine with a high percentage of sugar.

Very many of these cases develop diabetic coma followed the shock of operation, which is now attributed to the presence of diacetic and butyric acids. The absence of these acids in this case would seem to lend some support to that theory.

#### *Discussion.*

DR. C. H. GOODRICH said that pertinent to this subject would be a case that had been under his observation for the past two years, a man who at times had reached a high percentage of sugar in his urine, passing large quantities of urine, and who had had repeated attacks of cellulitis of the foot, generally beginning at the toes. On numerous occasions, by making incisions, the trouble had entirely cleared up, notwithstanding the fact that his general condition would not warrant interference. As far as he knew at the present time he was in very good health.

DR. J. P. WARBASSE said that we must approach this subject from the medical side rather than from the surgical side, if we want to develop the prognosis of these cases. The cases of diabetes are so variable in their causes, and in the courses which they may run, that the surgeon is scarcely in a position to make a prognosis.

The medical men are in the habit of seeing cases of diabetes with a given amount of sugar go along years and years without disturbance, and other cases with the same amount of sugar suddenly develop coma and die; and so in these cases developing surgical complications, the surgeon is not in a position—certainly if a medical man is not—to prognosticate just what course his case will take. Thus in the speaker's own experience he had, a few days ago, seen a man who had a gangrene of his great toe which had reached a point of demarcation; he had arranged to operate, but the patient died suddenly in a comatose state the day before that set for the operation. The speaker did not doubt but if he had operated, the patient would have died.

In a case of vesical-uterine fistula with a larger amount of sugar than this man had had, he saw no means of curing the fistula short of a vaginal hysterectomy, which he proceeded to do. The woman bore the operation just as well as a non-diabetic, and made a recovery without compli-

cation. The amount of sugar was neither increased nor diminished, and she has gone on now over a year without any change in her diabetes.

The matter of delirium in these cases is an important thing. He has in mind a case of diabetic gangrene of the leg with delirium, in which the delirium subsided after operation; and it was his judgment that it was more the delirium of septic absorption from the gangrenous limb than from the presence of diabetes; which would explain the condition in the case to which the previous speaker had alluded.

DR. W. H. RANKIN observed that inhalation of nitrous oxide gas is followed by glycosuria; and he offered the suggestion that in cases of diabetic gangrene it would be unwise to use nitrous oxide gas.

DR. H. B. DELATOUR had a case two years ago in which he gave nitrous oxide gas, and in which case he did an amputation. There was a gangrene simply around the tip of the toe. It was in a man who had been exposed to the cold, and the family physician made a diagnosis of frost bite. Inquiry was made into the history as to sugar, etc., but the family doctor said the man had none, so the speaker had the gas given and amputated the toe. The man was practically conscious all the while, i. e., he suffered no pain. The gangrene continued. Dr. Delatour got some of the urine himself then and found it was loaded with sugar. He subsequently had the patient removed to the hospital and did an amputation there, using gas at the second operation. In the afternoon his temperature was 104°, and he was in complete coma and never came out of it. The first time gas had no effect.

In a case reported last February of a man 55 years old with diabetic gangrene of the foot, the speaker did an amputation through the thigh. The man was in a bad condition, was delirious for two days previous to operation and was in coma for two days after the operation, but made a recovery. A patient operated on a month later left the hospital apparently in good condition, and died in coma the night after reaching her home.

DR. J. S. WIGHT said that as to the question of the nitrous oxide anaesthesia, the quantity of sugar is not an index of the severity of the diabetic condition and any increased quantity of sugar through the nitrous oxide will not necessarily affect the actual condition. Every case where sugar is present in the urine is not diabetic; and he agreed with Dr. Warbasse that



surgeons are more connected with the question of the surgical than the medical prognosis.

#### PERINEAL PROSTATECTOMY.

DR. W. B. BRINSMADE reported the case of a gentleman 70 years old, from whom he had removed the two lateral lobes of the prostate through the perineal route, and without the aid of any special instrument—nothing but the fingers being used and the scissors to split the capsule. The weight of the removed masses was 550 grains. The operation had no depressing effect on the patient. He was struck by the ease and simplicity of the operation.

#### *Discussion.*

DR. P. M. PILCHER said that he had recently visited Baltimore, and while there had an opportunity of seeing Dr. Young operate upon two cases in which he removed the prostate gland. The special points of interest in his technic are the instrument which he uses for drawing down the gland, and the care he takes in avoiding injury to the urethra and the bladder. A small incision is made in the urethra just in front of the prostate. Through this incision the traction instrument is introduced into the urethra and so on into the bladder. The instrument, when adjusted, engages the lateral lobes of the prostate from behind, and the gland, by traction, is brought nearer to the surface. The capsule of the prostate is then incised, leaving the small strip of prostatic tissue covering the urethra uninjured, and thus preserving the orifices of the ejaculatory ducts. The lateral lobes are then enucleated and removed, the medium enlargement, if present, being removed through one of the lateral spaces left after the delivery of the lateral lobes. This is done without further injury to the bladder or the urethra.

The speaker had assisted in twelve perineal prostatectomies, and it had been his experience that the use of Young's instrument greatly simplifies the operation. Judging from the post-operative histories of the cases in which there has been extensive injury to the urethra and the bladder, in the removal of the prostate, he should say that it is a condition to be carefully avoided, for in such cases the ability of the patient to control his urine is much impaired, and he is apt to suffer from a constant dribbling of urine. On the other hand, when the integrity of the structures at the neck of the bladder is preserved, the function of the bladder is much more quickly restored.

DR. H. B. DELATOUR said that he had operated

on five cases of enlarged prostate. In four cases he did as Dr. Brinsmade did in his case—simply made a perineal incision, dissecting back to the prostate, and, incising the gland, opening into the urethra at the prostate, and by pressure from above with one hand and working through the perineum with one or two fingers easily enucleated the gland. In none of the cases was the bladder injured, the opening into the bladder was simply the opening into the urethra, simply large enough to take the drainage tube.

A week ago he had a case to do and proceeded to use Young's instrument. In the first place the angle is very acute—it was not so easily introduced. After he had inserted it into the bladder, it acted beautifully as a tractor. It consists of two tubes, one fitting inside the other with two bases at right angles. One revolves the inner tube, and it causes the two projections to be placed at opposite poles. In the case in which he used it as a tractor he found that it bothered him some. He was constantly running against the tractor thinking it was some kind of gland. He came near cutting into the bladder to take out the tractor instead of the gland.

He was particularly well pleased with the result in this case. There was some little trouble for three to four weeks, but it entirely ceased. It was possibly as much due to the fact that a large drainage tube was left in the bladder rather than to any injury to the bladder walls.

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#### BROOKLYN PATHOLOGICAL SOCIETY.

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HENRY G. WEBSTER, M.D., Editor.

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The 446th Regular Meeting of this Society was held at the Building of the Medical Society of the County of Kings, 1313 Bedford Avenue, January 14, 1904.

The President, DR. JOHN MACEVITT, was in the Chair, and 48 members were present.

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PAPER: SOME OBSERVATIONS ON DISEASE OF THE THYROID, WITH AN ANALYSIS OF 28 CASES.

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BY DR. HENRY G. WEBSTER.

(See April number.)

SURGERY IN THYROID DISEASE.

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BY DR. H. BEECKMAN DELATOUR.

Personally, I have had little experience with the ordinary cystic or fibroid goitre. I have seen

some cases, a few of which recovered under treatment, but several of which I was compelled to refer to the surgeon for operation, because of very distressing dyspnoea from the pressure of the growth. Of myxoedema I have happened to see but one case, and, therefore, have had no opportunity of forming any independent opinion in regard to it. It is quite otherwise, however, with cases of exophthalmic goitre—a number of cases have been seen of the various types both acute and chronic. The main points of interest are, of course, with regard to the pathological character and the etiology of the disease, its diagnosis and its treatment.

Dr. Webster's paper leaves very little to be said except from the purely personal standpoint of one's experience. Explaining the symptoms of exophthalmic goitre and myxoedema on the theory that exophthalmic goitre is due purely and solely to the hypersecretion of the thyroid gland is extremely tempting; it is a simple and very easy explanation of the disease, and yet the more one sees of such cases and thinks and considers the theory of hypersecretion or hyperthyroidia, the less convincing it becomes. On the other hand, one becomes more struck with the importance of the nervous system as perhaps the primary and main factor in the disease; for instance, there are various psychic symptoms, which have been referred to—irritability, loss of memory, restlessness and insomnia.

The attacks of exophthalmic goitre are often preceded by attacks of neurasthenia or hysteria, and by far the greater proportion of cases occur in women whose nervous system is notoriously unstable. Then, again, during the course of Graves' Disease exophthalmoplegia and bulbar symptoms have occurred with sufficient frequency for some pathologists to suggest, that the lesion of the disease may be found in the medulla. Above all, we are struck by the symptoms referable to the sympathetic system—the tachycardia, the dilated blood vessels, the general throbbing, the flushes and sweats and the dermatographia, which is a very striking feature in some cases.

The secretory disturbances, such as the sudden and acute diarrheas which occur during the course of the disease, are very suggestive of involvement of the nervous system, with perhaps a secondary action upon the thyroid gland and its secretion. Possibly, also, some form of auto-intoxication may be at work aside from the hypersecretion of the thyroid gland. Certainly the results of treatment based upon this theory have been in many cases eminently satisfactory. Al-

though, of course, the question has not as yet been determined, the disease has always seemed to me rather primarily of the nervous system, associated, or in some way connected, with hypersecretion of the thyroid.

With regard to the diagnosis the full fledged cases can be read by him who runs. The symptoms are very obvious—the four cardinal points: the tachycardia, the enlarged thyroid, the exophthalmos and the marked tremor, so that there is really no mistake in diagnosis. The early cases, of course, until the symptoms are thoroughly well developed may give rise to a good deal of trouble. I am sure I have seen a number of slighter cases, in which perhaps there was no exophthalmos, possibly only slight or even no enlargement of the thyroid gland, but there was the tremor, there was the tachycardia, and there were the other symptoms of disturbed sympathetic innervation. These cases have yielded very promptly to treatment, and it would be very nice for one to feel that by prompt and early treatment a full fledged attack has been prevented. Whether this is so or not is a question.

With regard to the most interesting point—treatment. My personal results have been in a number of cases extremely satisfactory without operation. The cardinal point is absolute rest in bed for three to six weeks with a quiet and easy-going life afterward. Then, again, keeping the intestinal tract thoroughly cleansed is unquestionably of great service—a small dose of calomel once or twice a week; the steady action of intestinal antiseptics, the prescribing of a diet which is inclined to lessen intestinal putrefaction is also of great use.

The rest ought to be long continued; it ought to be a matter of months before the patient is allowed gradually to resume ordinary avocations. I recall one particularly interesting case in a young woman between 17 and 18, in whom the disease was extremely acute. It followed an attack of epidemic influenza. She was brought to my office after I had ceased calling on her at the house, with a pulse nearly 150, with the exophthalmos and thyroid enlargement well marked, both of which had not been present ten days previously. That was one of the most interesting cases I had ever seen. Within eight months that girl made a perfect recovery, mainly through strict adherence to all the rules which were laid down.

With regard to medication aside from the intestinal antiseptics. Adrenalin or the Suprarenal Extract has answered a very good purpose in helping to control the vaso motor symptoms, as



also have the Bromides. Digitalis and its synergists have a less important purpose. The continued use of considerable doses of Calcium Glycophosphate have been of considerable service also.

I do not recall having referred more than one case, perhaps, to the surgeon. The mortality in operations on the thyroid itself seems to have been rather large—if I remember, some 14%, i. e., in the partial removal of the thyroid gland itself. I have always fought a little shy of operations on that account, unless the case was one which seemed to demand rather heroic remedies.

Reference has been made to the use of the Splenic Extract. That I used faithfully for a time without the least result, however. My experience with Thyroid Extract has been distinctly unsatisfactory; perhaps one case has been better; the others without exception have grown worse, and that is what one would expect a priori.

As a matter of curiosity and perhaps of practical use in the future, although I have had no experience with it, the serum of thyroidectomized dogs has been recommended for use by hypodermatic injection, and, also, rather curiously, the milk of thyroidectomized goats, with the object of counteracting the toxic effect of the secretion of the thyroid.

Dr. J. M. VAN COTT: Schiff, in 1856, stated the platform of thyroid disease, and made the announcement which stands to-day, that we know nothing about it. We have some ideas, but the verdict is the Scotch one of *Non constant*. We know nothing absolutely about the nature of this disease excepting the changes in the gland itself.

There are three theories aside from that of the sympathetic, which have been in vogue, the first of which at the time of Schiff was, that this was a disease of a gland whose functionative activity was to preserve the characteristic and the properties of the blood; in other words, to preserve those things in the blood which constituted the total haemic function.

That was followed by an interesting theory which was promulgated by Monk, which was to the effect of the enlargement of the gland or traction of the gland upon the pneumogastric nerve and the filaments of the nerve which were in the gland. That is somewhat in line with what Dr. Butler said, that this is a nervous disease, the phenomena of which are due to changes brought about by reflex action in the nerves.

The third theory in this disease, it seems to me, is the one which is gaining ground quite rapidly, and which, under all the circumstances, is the most tenable, and that is that the thyroid has the

definite function of neutralizing or balancing certain chemical elements in the body, which, if not neutralized or balanced by the gland, will produce the symptoms which we know as Graves' Disease. Here we have a gland which is a definite structure, and which belongs to the internal secretion glands entirely analogous to the Islands of Langerhans in the Pancreas and glands of the same character all over the body. These are anatomical facts which prove definitely by analogy, that these have some special function, and this theory would seem to harmonize with the idea, that the function of this gland is to neutralize toxins.

Dr. Webster has already mentioned the presence of Thyro-Iodine. There has been another substance called Thyro-Protein discovered since the work of Baumann, and the treatment of this substance with HCl produces a hydrocarbonaceous material. There are a number of substances produced in the thyroid gland, which are contained in some chemical relation with each other in the colloid matter, which is in the follicles of the gland.

It would seem to me that diseases of the thyroid naturally divide themselves into two classes. The Doctor has already enumerated the amount of change which can be studied pathologically, such as the fact that one finds atrophy and hypertrophy and vascular changes in which there is actual hyperplasia of the vessels, and then also the presence of tumors such as sarcoma, adenoma and carcinoma. To that list must also be added syphilis and actinomycosis. I have seen one case of tuberculosis of the gland, and there are quite a number of reports of actinomycosis.

Now where the gland has become the seat of interstitial changes, which result in atrophy of these parenchymatous elements, you have a class of cases in which there must be suppression of the secretion. Where the gland is the seat of a general hyperplasia, in which you have not only increase in the stroma, but also an increase in the functionally active elements, it seems to me you have a condition in which there is a totally different class of changes, one giving lack of secretion and one giving an overplus of secretion, and I think that should probably explain the condition in the etiology of many of these cases.

If that be true it would account for some of the differences of opinion as to the true nature of this disease and of the relation of treatment to it.

Dr. Delatour has already spoken of the effects of total ablation of the gland and the fatal effects of suppression of secretion.

As to the treatment, I have had personally little

experience. I have seen, all told, in 18 years, perhaps six cases. The first case was a typical exophthalmic goitre. It was in the hospital at the time I was an interne, and the symptoms were extremely aggravated. The girl who was suffering with the disease had such a tachycardia, that the bed would rise and fall with the rhythm of the heart. She had all the sympathetic symptoms, and she suddenly died with a temperature of 106°.

I saw another case some years ago in which there was a moderate hyperthyroidia, and there I am very sure that the Thyroid Extract, in combination with galvanism, produced good effects, so that the lady not very long ago (she still has some evidences of the disease) was vastly improved, and I believe would recover if she would stick to her treatment.

I have seen other cases in which galvanism alone certainly has produced effect. One young man who was very anxious to become a soldier, and who had passed his examination for the army, was rejected because of a marked Graves' Disease. He was seen by Drs. Dawbarn and Bristow, and galvanism in that case, lasting a year, practically relieved the congestion.

I would like to say one more word in the matter of treatment. As Dr. Butler has said, the tremendous perspiration, the sudden diarrheas, are evidences which go to show that the system, in making an heroic effort to eliminate a toxin, which may well be regarded as an overplus of secretion in the gland itself. From what I have been able to gather in the literature, the other class of cases in which atrophy is at hand, fail to show this same amount of tremendous sweating and diarrhea and these evidences of effort to eliminate.

Dr. R. CLARK: There are one or two little facts I would like to speak about. The thyroid gland is classified as a ductless gland. In early fetal life we know that there is a duct leading off from the thyroid gland known as the thyro-glossal duct. How this occurs in fetal life it is impossible for us to determine. Besides that there must be an internal secretion, which is taken up either by the blood or the lymph.

Dr. Webster mentioned in the histology of the gland the appearances of large lymph channels. In the suprarenal and in the thymus we do not find as many of these lymph channels, and it may be barely possible that this secretion is taken up by the lymph rather than by the blood. However, whether taken up by the lymph or the blood, it probably gets into the general circulation.

These lymph channels are specially found in the thyroid gland.

The relation of the nervous system to the thyroid gland and the many nervous phenomena which develop, I think may very possibly be explained by the close connection this gland has with the sympathetic system.

With regard to Dr. Delatour's suggestion, the removal of the sympathetic ganglia with the object of relieving the symptoms, is like breaking an electric circuit.

There is one other point I want to mention with regard to the treatment. It seems to me the treatment of these cases, whether surgical or medical, rests on the character of the enlargement. If we have a cystic degeneration, I do not think medical or internal treatment will do that gland any good. I believe these cases must be treated surgically. If the gland simply shows a hyperplasia, it is well to proceed medicinally.

If there is a simple hyperplasia the case responds to medical treatment, and I have noted one case especially, in a woman of 32, who had an enlargement of the thyroid in which the neck measured 16½ inches. The gland had a leathery feel and there were no cysts in it.

I started off on the thyroid gland, giving first 15 grains daily, and increased it gradually every third day until she was taking 30 grains daily. I kept her on that for a month and increased it to 5 grains daily until she was taking 60 grains. I noticed after she was taking the large doses of the thyroid the gland became smaller more rapidly. I did not get any disagreeable symptoms from the giving of 60 grains daily. This gland reduced entirely in about eighteen months and the neck came down about 4½ inches.

We see more of these cases in the dispensary than in private practice. Whether they tend to develop more in the tenement house than in the well to do class, I am unable to say.

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## MEDICAL SOCIETY OF THE COUNTY OF KINGS.

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October, 1903.

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### *Urinary Tube Casts—Pathological Significance and Method of Determination.*

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BY THOS. C. CRAIG, M.D.

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DR. A. MURRAY: In the examination of urine for casts, the method of procedure depends some-



what on whether one has a centrifuge or not. If no centrifuge is at hand, the urine is allowed to settle for some hours in a conical glass and then a small amount of the sediment is placed on a slide and examined.

The method spoken of by Dr. Craig is one of the best—both where there is no centrifuge and where you have one, that is, you filter a large amount of the urine, then puncture the filter paper, and carry the sediment with some clear urine into either an ordinary test tube or a centrifuge tube. Where large amounts of urine are being passed, with only a few hyaline casts, you will by that method often find casts where otherwise it would be impossible. The ordinary centrifuge tube holds only 15 c.c., so that gives you only a limited idea of the contents of the urine.

As regards the microscope: The ordinary slide is too small for this kind of work; you require a slide at least 3 x 2 inches. As Dr. Craig also said, the 2-3 objective is powerful enough for all practical purposes. No cover glass is necessary, and you should avoid a bright light, for it is almost impossible to find hyaline casts with a strong light. If the 1-6 objective is used, then, of course, it is necessary to use a cover glass.

In regard to the classification of casts, there are three great classes: (1) True casts; (2) False casts and cylindroids; (3) Mucous cylinders. Classifications differ, of course, but this is the one I have adopted.

The true casts are known as hyaline and waxy, and generally you can differentiate these very readily under the microscope, but if there is any doubt a drop of acetic acid added to the sediment will dissolve the hyaline cast, and will not affect the waxy, or very slightly. The true renal cast has a uniform breadth with well defined borders, and it may be straight or curved. The ends are generally fractured or rounded. The true hyaline cast has a clear matrix, is feebly refractive and very transparent. The character of the cast is determined by the matrix. For instance, if the matrix of a hyaline cast contains fine or coarse granules, the cast is called finely or coarsely granular. If the matrix contains either epithelium, pus, blood or fat globules, then the cast is known as either an epithelial, pus, blood or fatty cast.

The waxy casts differ from the hyaline in being strongly refractive, slightly yellow in color and insoluble in acetic acid. Besides, they may or may not give the specific staining reaction for amyloid degeneration when treated with a mixture of iodine, potassium iodide and water. This

reaction is practically worthless as an aid in diagnosing amyloid kidney, for it has been obtained when no amyloid exists and it has failed in cases of true amyloid.

Now in regard to false casts and cylindroids. False casts have no hyaline matrix. They are composed of either blood, pus, epithelium, amorphous urates and sometimes bacteria, but these elements are not embedded in any matrix but are simply fused together. This can be proved by adding acetic acid to the specimen, and if it is a true hyaline epithelial cast, for instance, the matrix will be dissolved and the elements set free, whereas if it is a false cast the acid will have no effect.

Cylindroids resemble hyaline casts very closely. They are soluble in acetic acid and may contain epithelium, crystals and corpuscles, but they are very large and band-like and are of no particular clinical significance.

Mucous cylinders can be found in any urine containing mucus. They are insoluble in acetic acid and never of uniform breadth, and they seldom contain epithelium, blood or crystals.

If casts are to be stained, the mixture of iodine, potassium iodide and water will answer for the amyloid and waxy varieties, while fatty casts are best stained with either plain osmic acid or Marchi's fluid.

#### URINARY TUBE CASTS FROM THE SURGICAL STANDPOINT.

DR. W. C. WOOD: In speaking briefly of the surgical aspect of the subject, it does not seem desirable to go into those Surgical Diseases of the Kidney, which cause casts in the urine, because casts are only a minor event in these cases; but I want to speak of three points of surgical interest: first, concerning the question whether surgical operations produce casts in the urine; second, when casts are found in the urine, what precautions are necessary if you want to operate on these cases; and third, Edebohls' new procedure in the decapsulation of the kidney.

First: Concerning the production of casts in the urine by surgical operation *per se*, I have some general information on that point, because, for some years at the Brooklyn Hospital, the pathological department has been examining the urine of our patients this way: One specimen on admission, a second specimen the first day after operation, another the second day, another the third day, and another the tenth day. Our pathological interne, at my request, looked up briefly the history of 105 examinations of urine, which

showed no casts before operation: 41.8 per cent. of these 105 cases showed casts on one or more of these examinations of the urine, on the first, second, and third day after operation. That is a matter that I think is not generally appreciated by the profession. I can also state that the examination on the tenth day showed only a small percentage of casts in those who did not have them before.

It is very interesting to note, that as the age of the patient increased, so did the percentage of casts in certain procedures increase. Of course, 105 patients give meagre statistics—a fuller report might be advisable.

The number of cases and percentages of casts after operation were as follows:

Years.	Cases.	Casts.	No casts.	Per cent.
10	4	1	3	25
10 to 20	14	6	8	44
20 to 30	29	10	19	34
30 to 40	31	13	18	42
40 to 50	18	9	9	50
50 to 60	5	2	3	40
60 to 70	3	2	1	66
70 to 80	1	1	0	100
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	105	44	61	41.8

The usual anaesthetic in these cases was chloroform, followed by ether, or ether alone. Cases where casts are not present in the urine, unless some other indications are present, we usually use ether as a general anaesthetic. I do not believe it is the anaesthetic alone that is responsible for the production of casts, but that the strain and stress of the operative procedure shares in this responsibility in the same way that we get casts after severe exercise. I do not believe the anaesthetic can be rightly criticized as alone causing the production of casts, and I believe in these cases the presence of casts in the majority of patients has no unusual significance. The fact that casts are found in the urine in 42 per cent. of patients after surgical operation means that rest in bed and fluid diet should follow every operation.

Where casts are present before operation we believe the safest anaesthetic is chloroform and oxygen. If casts are present before operation, they are present in much greater number after operation. The number is less increased and general nephritic symptoms less developed if we use chloroform and oxygen. I do not think chloroform is less irritating than ether, but it is due to the fact we are able to produce anaesthesia with less drug and in less time than with ether. In all

these cases with nephritis our operations must be short, for the stress and strain of the operation must be taken into account, unless you are willing to take the risk of damaging the kidneys. Patients should also be more protected from cold.

The indications for operation must be much more urgent than they are when there is no sign of nephritis.

When you operate on patients with casts, if you put them in bed five days before operation with a fluid diet and a diuretic, these cases will stand the strain very much better.

In regard to this procedure of Edebohls', I believe there is something in it. There is no question but that decapsulation of the kidney has cured permanently certain cases of chronic interstitial nephritis, and only those cases are included which have showed no casts or albumin for six months consecutively. Some of these cases have gone on for ten years. Decapsulation of the kidneys has been done by Edebohls in 51 cases with a mortality of 13 per cent. Cases dying showed marked cardiac and vascular changes, deaths being due to uraemia, acute suppurative pyelonephritis, pneumonia, acute dilatation of heart and to cerebral hemiplegia. In cases not showing such changes there was and should be no mortality from decapsulation of the kidney.

Of these 51 cases, 48 were traced. There were 7 deaths within two weeks, 7 from two months to eight years (average life being one year and eight months); two have had relapses, one at fourth year, one at eight months; 10 radically cured; 22 greatly improved, able to work, but not perfectly well.

The opinion of the profession is rather sceptical in regard to this operation at present, but I think pessimistic optimism is a better standpoint.

#### IN RELATION TO LIFE INSURANCE.

DR. Z. T. EMERY: The preceding gentlemen have left so little for me to say, that I will occupy but a few moments.

Going along the lines of ordinary clinical procedure, the life insurance examiners at the present day have arrived almost at the same point. The interest that life insurance people have in kidney troubles may be shown by the fact, that, of those dying, insured, nearly 8 per cent. die of Bright's disease, and those dying of phthisis, insured, 10 per cent., showing that Bright's disease is a close second to consumption. This, of course, makes nephritis a very important point for all life insurance companies.

The importance of making urine analyses was first brought into effect by Dr. Munn. of New



York, who called the attention of the life insurance companies to the importance of finding albumin in the urine.

Life insurance examiners have a difficulty not usual to examiners, viz., the identification of specimens of urine, therefore they cannot get 24-hour specimens and examine for urea, and thus check the work of the microscopist.

To-day we are not so strongly opposed to taking cases where we find tube casts, as we were ten years ago, or even five years ago. We proceed along the general line, as indicated in the paper, finding upon the general symptoms; we do not regard the presence of hyaline casts in persons of 45, 50 or 60 years of age, and particularly if they are small casts as being very significant, unless in large number. However, if these casts are large or many in number, even when they are only of medium size, we do not regard them with considerable attention, but look for the source of them. We find it necessary to take everything into consideration. That is just simply the whole thing in a nutshell.

I can only add this: If we find hyaline casts, large, or even small, associated with an albuminuria, then it becomes necessary to keep that person under observation for a sufficient length of time to determine whether it is persistent or not. Oftentimes these cases will clear up in a day or two or in a week. If they promptly clear up and remain so, not much significance is attached to them, but if they are continuous or recur, or if the habits of the patient, either in eating or drinking or exercise, be at all such as to produce these casts, then that is taken into consideration with the casts, and perhaps the balance will be against the applicant.

The question has been very ably brought out by the reader of the paper as to the habits of the persons, whether they exercise or do not, whether they are pursuing a sedentary life, or whether they are pursuing a life which will enable them to use up much of the food they take.

I want to issue a word of warning to those who examine for life insurance, and that is with regard to their work with the microscope. It has come to be the belief of the majority of the medical directors of the larger companies, that they do not get reliable work with the microscope in the field, particularly outside of large cities. Now some large companies do not rely upon the microscopical work of outside examiners, believing they are misled sometimes, and that the microscopical report does not show the true contents of the field.

## LONG ISLAND MEDICAL SOCIETY.

THE ONE HUNDRED AND TWENTY-FIFTH REGULAR MEETING, JANUARY 5, 1904.

### SOME UNUSUAL HEART LESIONS.

DR. G. R. HAWLEY: In common probably with most practitioners of medicine, I have had the fortune to see several cases of unusual heart lesions. One of the first cases I recall that attracted my particular attention was that of a sailor in the wards of the Long Island College Hospital. He suffered from all the known valvular lesions (at least he was said to) and because of this became the daily text of our clinical professors. Many a budding M.D. listened to the sounds made wonderful by their description, emanating from the heart of this man, and became a little more dazed, if possible, than ever over what the murmurs were, whether aortic, mitral, tricuspid or pulmonary.

This case was probably of syphilitic origin, as he confessed to having had this disease many years previously.

The termination of this case was, of course, fatal, and that in rather a short time. The professors said he had a double aortic and mitral murmur.

Another case in my experience I recall on account of its unusual aspects.

This patient was a boy of perhaps thirteen or fourteen years, small of stature and undeveloped in mind as well as in body, being in fact much deformed. His fingers were clubbed and he was subject to attacks of spasms and unconsciousness, when his face would become deeply cyanosed, frothing at the mouth and gasping for breath. He would be covered at these times with profuse perspiration, and altogether would present an alarming appearance.

The prompt use of amyl nitrite would restore the circulation to normal and relieve the spasmodic condition. This condition of heart was congenital and due to the non-closure of the foramen ovale after birth.

Fortunately this lad did not live to maturity.

The third case is one of a male, age 43, always having had an active, out-door life. Exposed by his occupation as driver to the inclement weather, he contracted the grip about four years since, from which he suffered for three months, emerging with a weak heart and consequent prostration. About a year later he contracted rheumatism and was laid up for a long time.

When I saw him for the first time six months ago he complained of dyspnoea on slight exertion, and great weakness; even walking a few blocks would exhaust him completely.

He suffered from pronounced indigestion and malnutrition, and from a cough with slight expectoration. He had precordial distress also on slight exertion. Upon examination I found the area of cardiac dullness much enlarged in all directions, especially downwards, the apex beat being in the sixth interspace. The impulse was very pronounced; the heart sounds as well as the heart action itself were irregular and intermitted with a galloping rhythm. The first and second sounds were continuous, there being no interval between the two, the time being occupied with a murmur.

My diagnosis was, therefore, mitral regurgitation and cardiac hypertrophy and dilatation with incompetency. Anemia and malnutrition were well marked.

The treatment has been directed towards regulating diet and habits, together with ferruginous preparations and mild cardiac stimulants.

But nothing I did afforded any permanent good, and much to my regret he passed away on the second of this month. I had intended presenting him before this society as his case afforded some difficulty of diagnosis.

The most unusual thing about the case to me was the great amount of blood he expectorated during the last few days of his illness. I think he raised a pint or more per day, as he was almost constantly spitting it up.

#### THREE CASES OF EYE INJURIES.

BY JAMES COLE HANCOCK, M.D.

The three cases of eye injury to which reference is made in the program are brought to your notice because of the location of the injury in each case, that is, the ciliary region, injuries in this region always being of the utmost importance in consequence of the frequent fatal results.

The first patient was a man of thirty-eight, who while driving a nail made an imperfect stroke with the hammer, the nail flying into his left eye. He came to my office fifteen hours later in great pain, and with an intensely congested eye, showing signs of great ciliary congestion. There was a wound at the outer side of the cornea, extending into the sclera, and this wound was plugged with iris which protruded through it. Union had taken place, the anterior chamber was re-established, and the iris was firmly fixed in the wound. The wound was directly over the ciliary region.

Atropine and hot antiseptic bathing were resorted to, combined with an astringent instillation. The pain and reaction immediately began to subside, and in one month the patient was discharged, with the iris quiet, but still adherent to the wound; but the eye, from a cosmetic standpoint, was an extremely good one. Vision was defective, due to occlusion of the pupil from the iritis.

The second case presents conditions almost identical with the first, the injury being received in the same way, the wound in the same position, and the symptoms and course being the same. One important difference, however, was that good useful vision was finally obtained. The patient was 34.

The third report is that of a knife wound in the right eye of a three year old child, the wound being inflicted with a carving knife in the hands of a brother six years of age. The wound was in the same place as the others described, and must have been made from without in, this being important, as in this way the point of the knife would have been more liable to have penetrated deeper. Considerable iris protruded from the wound. Antiseptic treatment, combined with atropine was used as in the other cases, and for eight days the eye presented only the degree of reaction to be expected from such an injury. The patient was seen on the morning of the eighth day and seemed to be doing well, in fact the eye was becoming quiet. There was no pain nor had there been at any time. At midnight lids and eye began to swell, and when the patient was seen next morning the swelling had greatly increased both in the lids and in the conjunctiva. Later in the day free incisions were made in the conjunctiva and inner surfaces of the lids to relieve the oedema, and the piece of sloughing iris was removed. This was followed by some clearing of the cornea, which was becoming cloudy. Examination later in the day showed practically no improvement, and there seemed to be little hope of saving the eye. Hot applications were constantly applied during the night, and there being no hopeful signs the next day and the temperature suddenly going to 103.2, it having been around 100 to this time, the patient was etherized, and an incision made in the sclera about an eighth of an inch from the corneal margin, and carried around the corneal margin, thus removing the anterior portion of the eye, including the ciliary body. This operation was preferred to enucleation because of the more limited absorbing surface remaining. The vitreous was found con-



verted into pus, and this with the retina and choroid was removed, the eye washed out and packed with sterile gauze, which was left out in two days and the wound allowed to granulate. No reaction followed the operation, the temperature dropping to under one hundred in a short time. A peculiar condition remains, and the only complication in the case is a mass of conjunctival tissue projecting between the lids, due to the fact that the swelling of the lids was reduced much more rapidly than that of the conjunctival tissues, causing the protrusion, which has been compressed at its base by the lids. It can easily be removed.

I believe that in all these cases the ciliary body was involved, and, notwithstanding this, I believe that there will be no recurrence of trouble in the first two. Obviously the fatal result in the last case was due quite as much to infection at the time of injury as to injury to the ciliary body.

#### TWO FATAL CASES OF MALARIAL FEVER.

BY WM. S. HUBBARD, M.D.

These two cases, besides agreeing in the same unfortunate outcome, present several other more interesting common features. The title "Malaria" is often made to cover ignorance, and in the first case it may be that the real diagnosis was not made.

To start with, neither of these cases seemed hopeless or even severe, and yet the rapidity with which they both reached a fatal end was startling, to say the least.

Both were afflicted with valvular disease of the heart of several years' standing.

The first case, A. H., 33 years old, of fair family history, (rheumatic) and convivial temperaments, had been my patient for four years, and under observation from time to time for weak heart or minor ailments. Just prior to his last sickness he had complained of feeling out of sorts, but seemed better, when one day he came home in the middle of the day from his office in New York, which was near the subway digging, having had a severe chill about 10 A. M. I saw him soon after he returned and found his temperature 103½.

In about an hour he was in a profuse sweat. In the afternoon he had a second severe chill, lasting about half an hour, with the same fever and sweating following, except that the pulse rose to 120 and became irregular and the temperature rose to 104½. Spleen was enlarged, liver tender; constipation and vomiting were present.

He had large 20 grain t. i. f. doses of quinine,

but his stomach becoming irritable and his symptoms not abating, I gave the drug by the syringe. On the next day his condition abated and the temperature came down to 101, and he had only a mild chill, but again on the third day the chills and temperature returned and went higher. Though his blood was examined we could not find the plasmodium, but it was the opinion of a well known consultant that he had malarial fever. He died after a severe chill on the fifth day from heart failure, his temperature having been as high as 106 and as low as 96½.

The second case, a man 57 years old, a traveling man with a double organic lesion of the heart, of nervous temperament, returned from a five months' trip, during which he had made calls at all the important cities of the middle West, including Pittsburg. He reported in good condition at my office, and the next day I was called to see him and found him ill with poorly defined symptoms. Some headache, some pains in the region of the spleen and liver, general myalgia and a slight cough, and alternate chilly sensations and pronounced sweating, very irregular in their occurrence.

The microscope showed hyaline bodies and pigmented bodies in the red cells and a malignant form of malaria was diagnosed. His temperature was reduced to normal under quinine. His pulse, always weak, never reached 130, and though stimulated from the first with strychn. sulph. 1-60 q. 4 b. his heart gave out suddenly on the sixth day of his illness, when he had seemed to be doing exceeding well three hours before.

#### CASE OF PROLAPSE OF THE RECTUM (SIX INCHES).

J. B., 11 years, a German of good history, had whooping-cough three years ago, when he was ill for six weeks. Following this, and in consequence of the prolonged and severe coughing, he began to have a prolapse of the rectum, which came down with the slightest straining either at stool or in coughing. He endured this condition for three years, although it was growing worse all the time, and at last he applied for treatment.

Operation: This case was treated after the plan of Dr. Van Buren of New York with the Paquelin cautery, making lines about half an inch apart the entire length of the prolapsed gut, which, in this case, was six inches. A rectal tube surrounded with gauze was inserted and the rectum, well smeared with vaseline, was pushed back before it. This was removed after six hours and the pain and peristaltic movement checked by suppositories of opium. The bowels were moved

by saline met with an oil enema on the third day, and the boy had no prolapse at that time, nor has he since the operation, now about two months.

#### SECONDARY AMPUTATION OF THE FOOT.

E. B., 72 years, had both feet frozen 33 years ago, at the time a Chopart operation being done.

Owing probably to the low vitality of the tissue neither of the results were satisfactory and there were sinuses running into the bone in each stump. Twelve years ago the left stump was amputated a second time with good result, no attempt being made to remedy the right leg, as the patient's condition would not at the time permit. A year ago the gentleman presented himself for treatment, and I found an 'indurated pressure ulcer, which was very sensitive, on the bottom of his stump; a sinus, leading from this, revealed, on probing, the presence of softened bone. Operation was recommended, and a modified Pirogoff's amputation was made. No vessels of sufficient size to tie were found, and the wound was closed with a small drain of gut. A slough formed in the wound within two days, and the healing of the wound was slow. After six weeks the patient was able to walk as he had done before with two crutches, and he has been steadily improving in that respect till now he is able to walk about his room unaided, and goes on the street with a cane only in good walking.

The patient's mental condition has been a source of trouble to his family, but that has improved.

Dr. Hodgskin reported several very interesting cases of traumatic neurasthenia, and said that there was no relation between the extent of the injury or shock and the severity of the symptoms.

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#### PROGRESS IN GYNECOLOGY.

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CHARLES JEWETT, M.D. AND A. SCHAUF, M.D.

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#### EXTIRPATION OF THE PREGNANT UTERUS IN A WOMAN NEARLY 56 YEARS OF AGE.

Dr. Geyl (*Zentralblatt für Gynäkologie* No. 23) reports the following case: Patient, 55 years of age, multipara, has had sixteen viable children and five abortions, two of which occurred in her 49th year. From the 49th to the 53d year menstruation was regular but somewhat profuse. During the last 1½ year the menses were irregular, occurring every 2, 3, 4 or 5 weeks. The menses then ceased for three months and it was believed that she had reached the menopause. She had no uncomfortable symptoms except that

she felt more nervous than usual. Suddenly, without warning, a severe hemorrhage occurred. A short time after chills appeared every evening, followed by fever accompanied by a profuse muco-sanguinous offensive vaginal discharge. This condition continued for several weeks, when the patient presented the appearance often noticed in chronic sepsis or in malignant disease. The suggestion of the family physician, that he believed the whole trouble to be an incomplete abortion, was, after due consideration, excluded. An examination revealed a soft patulent eroded oedematous cervix which the finger could easily enter. Bimanually the uterus was found enlarged, and with one finger in the uterine cavity a soft, rough, irregular mass was felt which seemingly filled the entire uterine cavity. A diagnosis of malignant disease of the uterine wall was made with the probability that it was an inflamed sarcoma to which a collateral oedema had been added.

Total extirpation after Doyen was performed and after a prolonged convalescence the patient recovered.

A microscopic examination of the extirpated uterus and contents was made, and to the astonishment of the writer the results proved the mass to be a sloughing placenta, the necrotic process having involved the uterine wall and cervix. Notwithstanding the apparent mistake in diagnosis, which was excusable considering the age of the patient and the history, the treatment surely was indicated since it is hardly possible that a simple curettage would have been sufficient to effect a cure in the already infected and necrotic uterine wall.

#### A NEW FOETAL PERFORATOR.

Dr. Enrico Tridondani (*Zentralblatt für Gynäkologie* No. 26) presents a new instrument for perforation of a fetus in utero. It consists of a circular sharp-edged ring attached to a rod and handle. It can be used not only for perforating the presenting head, but also the after coming head or any presenting part. The fingers of one hand guide the cutting edge, while the other hand, grasping the handle, executes a circular movement combined with pressure, thus effecting perforation. Its advantages are ease of disinfection, simplicity, effectiveness and the fact that no assistant is required.

#### WHAT MASK IS PREFERABLE FOR ETHERIZATION?

Dr. Beaucamp (*Zentralblatt für Gynäkologie* No. 26) describes an ether inhaler which he has used with great success for five years. It con-



sists of a nicked metallic cylinder which can be taken apart, and is divided into an upper, lower and middle chamber. The upper chamber contains an inlet valve for the admission of ether and air; the middle, which is separated from the other two by wire gauze, is the mixing chamber, and contains gauze and cotton wool for the vaporization of the ether. The lower chamber, which rests over the nose and mouth of the patient, has an outlet valve for the exhaled gases. A rubber pneumatic cushion surrounds the edges of the lower chamber to insure a close fit to the face of the patient. The ether and air enter through the inlet valve, pass into the middle vaporizing chamber, thence into the lower chamber and into the lungs, whence it is exhaled and passes out through the outlet valve.

When in use the clicking of the valves assures the anesthetizer that all is working properly. The advantages of this inhaler are these:

No accumulation of carbon dioxide can take place; and ether is thoroughly vaporized and mixed with atmospheric air during the entire period of narcosis; all the ether poured into the inhaler is used, none of it is wasted, and the exact amount consumed can correctly be measured. In 2,700 etherizations no death occurred, and no asphyxia was observed.

Loss of consciousness begins in two to three minutes and quickly returns when the anesthetic is stopped. The amount of ether used for examinations and minor operations is 10 to 20 ccm., while for major operations 100 to 300 ccm. suffice.

#### REGARDING MISSED LABOR AND ABORTION.

Ernest Fränkel (*Sammlung klinischer Vorträge* No. 351) defines missed labor as unsuccessful labor, attempts occurring shortly before or at the normal termination of pregnancy with temporary or permanent cessation of the expelling forces, resulting in the retention of the fetus in the uterus beyond the time of its normal uterine existence.

Missed abortion is the retention in utero of a dead intact ovum, occurring before viability and retained up to the period of normal pregnancy or beyond after unsuccessful abortive attempts have been made. A clear interpretation of missed labor is intended to be conveyed in answering the following questions:

1. What is the real cause of the beginning of labor pains and why should they, once begun, continue until the termination of labor?

2. What conditions can temporarily or permanently restrain them?

3. How can they be revived after a long period of cessation?

To the first question the answer is, according to the views of Küstner and Keilman, that sufficient cervical and fetal development must have occurred simultaneously for labor to begin, while excitation of the cervical centres controlling uterine contractions is directly responsible for its onset.

In answer to the second question, it may be observed that for the normal progress and completion of birth the proper proportion between the muscular power of the upper uterine segment and that of the lower dilating segment is necessary. Any deviation from this normal relation may result in missed labor.

Regarding the third question, it may be said that the so-called foreign body theory affords no adequate explanation of the renewal of labor pains after a period of long cessation. As a direct motor factor, menstrual congestion is the prime cause, which is the more efficient the farther its influence is removed from the end of the normal term. In a sloughing ovum the toxins absorbed by the blood and consequent fever may also be causes of uterine contractions.

The causes of missed abortion are analogous to those of missed labor and can be explained in the same way.

Should retention of a dead fetus at or near term occur beyond the normal pregnancy period, it should not be treated expectantly but should be removed at once. Should no pains appear within from six to eight weeks after the normal term has passed, then prompt measures to bring about uterine contractions should be employed, such as metreuryesis, Bossi's dilatation, subcutaneous injections of spasmotin, etc., while in missed abortion cervical dilatation and, if possible, digital curettage, should be employed to expedite the evacuation of the uterine cavity.

#### PROGRESS IN NEUROLOGY.

E. G. ZABRISKIE, M.D.

*Some Observations on Primary Degeneration of the Motor Tract.*

Dr. F. W. Mott & A. F. Tredgold.  
*Brain*, Vol. 25, No. 100, 1902.

The authors give a detailed study, clinical and microscopical, of two cases of lateral amyotrophic sclerosis, one of progressive muscular atrophy, and one of chronic rheumatoid arthritis with muscular atrophy.

They consider the process a progressively

chronic one, beginning in the periphery of the neuron, and gradually working toward the cell, but cannot find any satisfactory etiological factor. They consider the association fibres as belonging to lower motor segment and atrophy appears proportionate to the number of cells affected and is possibly of secondary nature, the atrophy of fibres of the posterior columns thought to be due to secondary disuse, atrophy of fibres coming from the muscles.

THE LESIONS OF THE POSTERIOR LYMPHATIC SYSTEM OF THE CORD ARE THE ORIGIN OF THE PATHOLOGICAL PROCESSES OF TABES.

BY PIERRE MARIE AND GEORGES GUILLAIN.  
*Revue-Neurologique*, Jan. 30, 1903. No. 2.

The authors call attention to the fact that the pia covering the posterior surface of the cord is constantly affected and not the anterior surface. They hold that the primitive lesion is not exclusively radicular, and that often the alteration of myelin fibres adjacent to certain interstitial tracts produces pseudo-radicular degeneration.

Relying on the experimental researches of others and their own pathological findings, the authors consider that there exists in the cord, a lymphatic system composed of the posterior columns and the adjacent pia, with the posterior roots, and that the initial lesion in tabes is a syphilitic lesion of this system.

ON THE DIAGNOSTIC VALUE OF THE POSITION OF THE HEAD IN CASES OF CEREBELLAR DISEASE.

BY DR. F. E. BATTEN.  
*Brain*, Vol. 26, No. 101, 1903.

The paper deals with three questions: (1) Is a definite attitude assumed by the head in cases of cerebellar disease? (2) Does the position correspond to that produced by an experimental lesion? (3) Is the position assumed in cases of intracranial disease where no gross lesion of cerebellum can be found?

After a detailed consideration of six cases, Batten concludes that it is not invariably present, that when present the relation of the ear to the shoulder is the reverse, the position of the face the same as in experimental ablation of one lobe of the cerebellum, and that this attitude is sometimes present when there is no gross lesion of the cerebellum, hence too much importance must not be attached to the position of the head as a diagnostic sign.

PSYCHOSIS DURING PERNICIOUS ANAEMIA.

BY DR. HENRY MARCUS.

*Neurologisches Centralblatt*, No. 10, 1903, p. 463.

Marcus describes a case of psychosis during pernicious anaemia followed by recovery. The spinal nervous symptoms were fibrillary tremor of tongue and flaccidity of muscles of upper and lower extremities and diminished power. No marked changes of sensibility but marked ataxia of arms and legs. Gait difficult, drags one leg stiffly after the other. No Romberg. Psychic symptoms are great restlessness, increased excitability and irritability, spoke a great deal, had expansive delusions and became incoherent. Later diminished mental capability, dullness and somnolence. These symptoms recede under increasing doses of arsenic. The description of the blood findings is rather meager.

THE QUESTION OF A PERIPHERAL ORIGIN OF SENSORY FIBRES IN MAMMALS.

BY DR. G. BIKELES AND DR. M. FRANKE.  
*Neurologisches Centralblatt*, No. 9, 1903, p. 386.

The authors combat the theory of Pierre Marie that certain bundles of the posterior roots originate in nerve cells which have separated from the groups forming the neural plate in foetal life, and then withdraw in the centrifugal developmental direction of the different organs where they remained fixed. The authors assume that if this theory of the so-called peripheral ganglion cells is true, after resection of peripheral nerves, there should remain fibres in the peripheral stump which do not degenerate. The most careful examination of serial sections of the peripheral ends of cut nerves of Guinea pigs, rabbits, cats and dogs failed to show any normal or degenerated fibres.

SPECIFIC AUTOCYTOTOXINE AND ANTICYTOTOXINE IN THE BLOOD OF EPILEPTICS.

BY CARLO CENI.

*Neurologisches Centralblatt*, No. 8, April 16, 1903.

This is really the continuation of former work in which the author's observations have led him to believe that the blood of epileptics contains two quite different active principals of endogenous origin; a toxic principle circulating in a free condition in the organism, and a therapeutic principle combined with the red blood cells, and only set free during petagolysis or in the moment when the blood has left the organism and coagulated. The author, in the present work shows by a series of carefully controlled inoculation that



serum of epileptics, inoculated in animals, is, by the reaction of their organism, capable of producing a body which has a constant toxic and specific effect for epileptics only. This serum, when injected in epileptics, intensifies the attacks.

If the smallest dose required to produce these manifestations about  $\frac{1}{2}$  c.c. is mixed with normal serum of epileptics and then injected, a decided diminution or cessation of the attacks is observed. In contradistinction to the toxic body, the anti-toxic body seems to have a more specific and individual effect upon the organism from which it was removed.

#### PROGRESS IN DERMATOLOGY.

J. M. WINFIELD, M.D.

##### SEA-BATHING IN SOME FORMS OF SKIN DISEASES.

R. Abrahams, M.D., in the *New York Medical Journal*, March 26, 1904, advises "Sea-bathing in some forms of skin diseases." His list embraces the following: "Pityriasis versicolor, Herpes tonsurans maculosus et squamosus, chronic eczema, and pruritus senilis." He advised his patients to take a daily dip in the ocean and to continue it as long as the weather will permit. His attempts at an explanation of how the ocean bath is more apt to be met with good results, than a salt water bath in a tub, is, to say the least, ingenious. In the first two diseases listed, both being mycotic, the iodine, bromine, etc., of the salt water might have antiparasitic effect. The cure of the cases of chronic eczema and pruritus he thinks is due to the chemical composition of the sea water, the long immersion and the effect upon the skin of the pounding of the waves and the subsequent rolling in the sand while drying.

##### PREVENTION OF THE SPREAD OF RINGWORM.

F. H. Beadles, M.D., in the *New York Medical Journal*, Jan. 23, 1904, writes on the "Prevention of the Spread of Ringworm." He first advises that the schools should be inspected by competent physicians or nurses (this is done in New York), and all suspected cases excluded from school. All cases of scalp ringworm should be held under suspicion while there are any scales or broken hairs to be seen. Children coming in contact with those having the disease, should be closely watched. The individuals under treatment should sleep alone and use separate towels, combs and brushes. All mangy animal pets should either be destroyed or isolated.

##### ACNE TREATED BY STRAPPING.

A. Rose, in the *Medical Brief*, vol. 31, 1903, reports the cure of Acne by strapping the abdomen with adhesive plaster, which was used for gastropnoia. The abstractor, at the suggestion of Dr. Lincoln, has had excellent results from abdominal strapping, in cases of acne.

##### THE TUBERCULIDES.

Nicolau, in the *Ann. de Derm. et de Syph.*, Oct., 1903, gives a valuable contribution to the study of the Tuberculides. This subject is of great interest to the dermatologist at the present time. The types of the disease which the author considers belong in this group are quoted.

Acnitis and folliculitis of Barthelemy. Acne cachecticorum. Lichen scrofulosorum. Lupus erythematosus of Cazenave and its varieties. Desseminated Lupus erythematosus of Kaposi. Lupus pernio. Erythema induratum of Bazin. Certain varieties of nodular lupus in multiple patches (Darier).

##### ACUTE CONTAGIOUS PAMPHIGUS OF THE NEWLY-BORN.

Dr. George J. McGuire, in the *British Med. Jour. of Derm.*, Dec., 1903, records eighteen cases of "Acute Contagious Pemphigus in the Newly-born." These all occurred in infants that had been attended by one midwife and after a very careful examination of all of the cases, he concludes as follows: 1. That this epidemic was one of the rare diseases known as Pemphigus Acutus Neonatorum. 2. That it was due to the infection of the staphylococcus pyogenes aureus conveyed from case to case by a certain midwife. 3. That while it appears chiefly in the new-born and is fatal only to them, it may attack older children and adults. 4. The eruption was bullous, and the specific micro-organism was found in the contents of the vesicle. 6. In many of the cases the skin eruption was the only symptom, while others showed evidences of internal infection, and invariably ended fatally. 6. The point of invasion in the fatal cases was the unhealed umbilicus. 7. Treatment had little or no effect upon the course and duration of the disease.

##### DERMATITIS GANGRENOSA.

J. Magee Finny, in the *Indian Med. Record*, reports an interesting case of Dermatitis Gangrenosa. This rare disease has been described under various names; the earliest account of it was by Dr. Stokes, of Ireland, in 1807, who calls

it White Blisters. Eating Hives, or Pemphigus Gangrenosus. In 1882, Jonathan Hutchinson described it under the title Varacella or Vacinnia Gangrenosa. The most recent and perhaps the best designation is given by Radcliff Crocker, viz., Dermatitis Gangrenosa Infantum. The history of Dr. Finny's case was as follows: A boy, aged two and three-quarter years, was admitted to the hospital suffering from what had been diagnosed as impetigo. In the supra-pubic region, penis, prepuce, wrists, and backs of the hands were a number of large sized pustules. Later extensive ulceration occurred, notably about the face. The right hip and left knee was covered with a number of deep round punched-out ulcers. The upper left eyelid was covered with a diphtheritic-like membrane which invaded the eye, producing a large corneal ulcer. The ulcers gradually increased in number and size in spite of treatment. A fatal termination occurred six days after the onset of the disease.

Brocq, in the *Ann. de Derm. et Syph.*, March, 1903, writes on eczema regarded as cutaneous reaction; he speaks only of vesicular eczema, and after touching upon the uncertainty of the etiology of this disease, he says, that if all the clinical facts were carefully analyzed, we would find that some cases of eczema followed external irritation and others were caused by intoxications, auto-intoxications and various organic diseases. He is inclined to regard true vesicular eczema as a pure cutaneous reaction. He emphasizes the fact that all the causes which are given to explain eczematous eruptions, including the microbic, are not really the provocative cause. That we must therefore seek further for the true agent.

#### LEPROSY OF THE OVARIES.

Gluck and Wodynski, in *Archiv. f. Derm. and Syph.*, 1903, discuss Leprosy of the Ovaries. In spite of the known deleterious effect of leprosy upon the male sexual organs, it has been claimed that the female organs are not seriously, if at all, impaired. The doctors made careful microscopical examination of the ovaries of six females dying from leprosy and found in all marked interstitial changes and the lepra bacillus.

#### PAGET'S DISEASE OF THE UMBILICUS.

T. Calcott Fox and J. M. H. Macleod, *British Jour. of Derm.*, Feb., 1904, reports a case of Paget's disease of the Umbilicus; the patient was a male, 65 years of age, good constitution and no history of any previous illness, no family

history of cancer. In the umbilical region was a rounded eczematoid patch about two inches in diameter; this had been gradually forming for about eleven years; the central part of the patch was a bright red color, with small spots of white epithelium with ulcerations, between which exuded serum, the border of the patch was smooth and elevated, the whole patch feeling infiltrated. After biopsy, histological examination confirmed the suspicion of Paget's disease. The doctors conclude their article with a valuable resumé of the literature of the subject.

#### PROGRESS IN OTOLGY

J. E. SHEPPARD, M.D., AND S. H. LUTZ, M.D.

##### *A Consideration of Middle Ear Suppuration in Relation to Life Insurance.*

Wendell C. Phillips (N. Y.), in the "Transactions of the Ninth Annual Meeting of The Amer. Laryng. Rhin. and Otol. Soc.," as a result of communications from thirty of the leading life insurance companies of New York, comes to the following conclusions:

1. That acute suppurative otitis media in an otherwise healthy person should not debar him as a safe risk beyond the time necessary for his recovery, which, under proper treatment, should not be more than three or four weeks.

2. Recurrent suppuration of the middle ear, especially in early life, is usually due to some form of intranasal disease, especially adenoid vegetations of the vault of the pharynx and hypertrophied tonsils. This is usually curable by proper attention to the intranasal defects and experience would bear out the statement that the cure is permanent and therefore should not interfere as a menace to life. Such applicants should not be delayed after a reasonable time subsequent to thorough operation.

3. A large proportion of the serious intracranial complications, especially from the life insurance standpoint, occur in chronic suppurative otitis media. The statistics reported in this paper indicate that such complications are of sufficient frequency to render this condition a somewhat serious menace to life.

4. Continuous discharge with foul odor is indicative of more or less extensive necrosis. Applicants with such discharge should be considered bad risks under all circumstances until a cure has been effected, either by local treatment or radical operative interference.



5. Large perforations and apparent free drainage, while militating in favor of the patient, should not be considered in any manner as a guarantee against extension of the necrotic process to the deeper and perhaps vital structures.

6. In special cases, where large amounts of insurance are desired, the opinion of expert otologists should become of value in deciding the degree of danger in the individual case.

7. Radical operative interference is destined to become an important factor from a life insurance standpoint.

*A Brief Consideration of Prognosis in Chronic Suppurative Otitis, Based on the Results of a Year's Treatment of Such Cases.*

Dr. Thomas J. Harris (N. Y.) read a paper with the above title before a recent meeting of the Eastern Section of the Amer. Laryng. Rhin. and Otol. Soc., and published in the "Transactions," in which he presents the following deductions:

1. Chronic otorrhea, in a large percentage of cases, is amenable to suitable medical treatment.

2. In addition to proper attention of a general character and to the naso-pharynx, peroxide of hydrogen, with or without formalin solution, gives the best results, all minor operative procedures of course first being attended to when necessary.

3. The results of such treatment are, in a good number of cases, permanent.

4. The risk of an uncured otorrhea with good drainage is relatively very small (one-half or two-thirds of fatalities).

5. Medical treatment failing, after a suitable interval of time, the danger of fatal complications in absence of all symptoms should be laid before the patient and the promise of relief by operation stated.

6. Where there is no good reason to the contrary, such an intercranial or mastoid complications, the intratympanic method of ossiculectomy should be preferred.

(a) Because its results as regards the cure are equally good.

(b) The risk to loss of hearing is vastly less.

(c) The danger of unpleasant sequelae, such as facial palsy, is avoided.

(d) The possibility of prolonged after-treatment is obviated.

7. The radical operation is not without risk to life.

8. Where ossiculectomy fails or mastoid or other symptoms exist, pointing to extension of the disease into the bone, the radical operation

then becomes the suitable and valuable method of relief.

9. The protecting and assising power of nature is never to be lost sight of.

*Clonic Spasm of the Tensor Veli.*

Valentin, in *Zeitschrift für Ohrenheilkunde*, writes on "Clonic Spasm of the Tensor Veli; Objective Tinnitus from that Cause." The author, after quoting all other causes of objective tinnitus, adds his own discovery as above, and advises a very careful and thorough post-nasal examination as well as inspection of the tube mouth.

*Herpes of the Ear with Neuritis.*

T. Sarai. "Herpes of the External Ear with Neuritis of the Facial Nerve." In the *Zeitschrift für Ohrenheilkunde*, the author relates a case in which, with a typical herpes of the ear, there were pain and paralysis of the facial nerve of the same side.

Körner, in *Münchener Medizinische Wochenschrift*, relates a similar case but more extensive. In Körner's case there was paralysis of the auditory nerve as well as of the facial on the right side. With Faradism and Fowler's Solution he made a rapid recovery. Körner compares this trouble with Herpes Zoster of the Eye and calls it Herpes Zoster of the Ear. He thinks the facial paralysis was due to anastomoses between this nerve and the trigeminus and the auditory nerve was involved on account of the close position near their origin of the auditory and the facial nerves.

*Pathology of Otosclerosis.*

Haberman, in *Archiv für Ohrenheilkunde*, has a long article on "The Pathology of the So-called Otosclerosis." He has reached the conclusion that syphilis is the real cause of this condition. A perusal of his article will well repay the reader.

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**PROGRESS IN SURGERY.**

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GEORGE R. FOWLER, M.D.

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**LEUCOCYTOSIS IN APPENDICITIS.**

H. GOETJER (*Münchener Med. Wochenschrift*, 1903, No. 17) gives the results of the examination of forty cases observed in the St. Helwig's Hospital in Berlin, as follows: In case of permanent high leucocytosis (from 20,000 to 30,000) a suppurative process is to be suspected in appendicitis, providing other complications producing

leucocytosis can be eliminated from the diagnosis. In cases in which decided and severe clinical symptoms of appendicitis are present, and in which a normal leucocyte count, or a slight leucocytosis is observed, this is to be looked upon as a very unfavorable symptom. In cases of diffuse peritonitis the significance of the leucocyte count is lost entirely.

L. Rehn (*Zentralblatt für Chirurgie*, No. 48, 1903), in a paper read before the Seventy-fifth Congress of German Naturalists and Physicians, expresses the opinion that counting the leucocytes is without any value for diagnostic purposes and surgical indications in cases of acute appendicitis. He lays stress upon the importance of viewing the conditions present in the living body in appendical lesions, and declares that the surgeon who has had the opportunity of seeing many such sections is better able to recognize the disease in individual cases than he who sees them but seldom, or not at all. Even the experienced surgeon may arrive at a wrong conclusion in diagnosing acute appendicitis. In further discussing the question of blood examination, the author declares that reasoning *a priori* that the reaction of medulla of bone is so regular as to be depended upon in estimating the degree of inflammation of the appendix and deciding the question of operative interference, is not to be considered. He cites nineteen cases from his own experiences to show that the number of leucocytes are quite irregular, and that those cases which require the most prompt operative interference may pass on without rise of number of leucocytes. On the other hand, large abscesses where leucocytosis is found with the greatest regularity can be easily diagnosed without this aid.

The author presents nineteen cases in tabulated form in support of his contention.

J. Silhol, in a thesis entitled "Examination of the Blood in Surgery with Particular Reference to the Diagnosis and Prognosis of Appendicitis" (Thesis de Paris, G. Steinheil, 1903), emphasizes the importance of systematic examination of the blood, of counting the white and red blood corpuscles, and of estimating the hemoglobin content in the diagnosis of the surgical infectious diseases, particularly of the abdomen. In tumors examination of the blood, save perhaps in cancer of the stomach, does not afford practical results. Even in this class of cases the examination may only be of assistance indirectly. A decided diminution of the hemoglobin content, with diminished number of red corpuscles and final alteration in the shape of the latter, together with a

leucocytosis amounting to from fifteen to twenty thousand, and offering very richly mononuclear elements—these occurring in a patient with gastric symptoms, according to S., indicate the presence of a neoplasm.

The author discusses the influence of operation, the effects of ether and chloroform, and of hemorrhage, and emphasizes the importance of examinations of the blood both before and after operation, deeming this no less important than examination of the urine.

In appendicitis the blood examination cannot separate those cases that are to be treated expectantly from those demanding immediate operative interference, but by its aid the surgeon may be able to identify certain cases as being mild in character in spite of the presence of severe symptoms, others as being decidedly dangerous in character, and finally, those of average severity. Exclusive reliance upon the blood examination, on the other hand, is more than likely to be misleading. The entire clinical picture must be taken into account. Slight diminution of the hemoglobin content and considerable leucocytosis are commonly found in cases of average severity, both with and without the formation of abscess. If, under these circumstances, it is found in the course of forty-eight hours that the number of leucocytes is diminishing suddenly and rapidly, while the general condition is deteriorating, the prognosis is to be regarded as grave. If, however, the decrease of the leucocytes is observed to be coincident with a stationary state or an improvement in the general symptoms, the prognosis is good. Extremely toxic forms are characterized by an entire, or almost entire absence of leucocytosis and marked diminution of hemoglobin content. In mild cases and those of average severity in which leucocytosis is augmented to 30,000 or more, abscess formation is probable, although even large abscesses may occur without any leucocytosis.

S. advises operation in the mild and toxic forms at once. In cases of the common or average forms he delays operation whenever possible, the blood operations being continued in the meanwhile, until the period of quiescence.

Stadler (*Mitterlunger a.d. Grenzgebieten d. Medizin u. Chirurgie* Bd. XI Hft. 3), in a communication upon the importance of the percentage of leucocytes in the inflammatory processes originating in the cecum and appendix, upon the basis of seventy new cases observed in the Leipsic Medical Clinic, affirms the formerly published conclusions of Curschman, the result of studies



carried on in the same clinic. In the non-suppurating cases the number of leucocytes did not reach 23,000 in any case, and soon fell to the normal. A rise, however, of leucocytes beyond 25,000 indicates, according to S., the presence of pus, but reliance is not placed so much upon the absolute size of the number as upon a continuation of the leucocytosis from day to day. When the abscess is opened the number of leucocytes falls, unless there is retention of pus or further closed foci exist. In the latter case, the leucocytosis persists or is augmented.

In cases of general suppurative peritonitis the percentage of leucocytes demonstrates the powers of resistance of the organism; in cases taking a favorable course the number is high; in cases of severe onset pursuing a fatal course it is low, the organism under these circumstances failing to offer the power of considerable resistance.

The author concludes that the relation of the white blood cells is a much more certain indication of abscess formation in acute appendicitis than all the other clinical appearances combined. In case the abscess is solidly walled off and the inflammatory process localized, the leucocytes recedes, and, in exceptional cases, the leucocyte count may return to the normal. In chronic suppurative processes the relation of the leucocyte count, therefore, has only a restricted diagnostic value.

#### INTRASCAPULAR RESECTION IN HYPERTROPHY OF THE PROSTATE.

L. Rydgier. *Zentralblatt für Chirurgie*, 1904, No. 1, pp. 2-6. Rydgier first proposed partial perineal prostatectomy in a communication entered "*Zur Behandlung der Prostata Hypertrophie*" (*Zentralblatt für Chirurgie*, 1900, No. 40, p. 100), and in subsequent articles urgently recommended its adoption in 1901 (*Verhandlungen der Deutsche Gesellschaft für Chirurgie*, 1901, p. 19) and 1902 (*Der Intraskapsular Prostata resection als Normalverfahren bei Prostata hypertrophie. Zentralblatt für Chirurgie*, 1902, No. 41). Accurate description of the technic of the procedure was given, which differs essentially from the methods of Alexander, Nicoll, Jabulay, Freyer, Czerney, and Zuckerhandl. R's aim has been, in all his writings upon the subject, to develop a procedure that has for its object the accomplishment of the end in view with as little disturbance of the economy as possible. This, in view of the fact that the operation, as a rule, is demanded in more or less infirm elderly men. He calls attention to the objections to attempts at

removal of the entire prostate, and bases its primary incision upon the avowed purpose of removing only a portion of the gland. For this reason he advocates the median antero-posterior or raphe incision, extending from the root of the scrotum to the neighborhood of the anus. He admits that the prerectal arched incision of Zuckerhandl, as well as the arched incision with an added longitudinal incision of Riedel, give better access, but claims that sufficient room can be gained and less injury inflicted by the raphe incision.

R.'s next point relates to the splitting of the capsule. This he always does laterally, and to an extent corresponding to the indications in the particular case. He criticizes Völcker and Zuckerhandl's method of splitting the capsule in the median line, claiming that the presence of the isthmus connecting both lateral lobes at this point brings this portion of the manipulation in close proximity to the urethra and endangers the latter. The urethra, he claims, should not be opened purposely, still less the bladder. Accidental injury to these should be avoided whenever possible, since this not only adds to the dangers of the operation but leads to a much more complicated course in the after-treatment. In all cases published by Völcker (v. Langenbeck's Archiv., Vol. LXXI, Fascic 4), in which the urethra was opened, there were 3 fatal cases; 3 of injury of the rectum; 2 of permanent perineal fistula, and 1 of stenosis at the site of the operation. In the latter case, the prostate was removed in toto. It is admitted, however, that frequent injury to the urethra and bladder occurs in spite of every care. But, as R. claims, the intentional opening made at first does not necessarily protect against a further and very extensive and irregular laceration later on in the manipulation. By leaving the portion of the prostate next to the urethra he hopes to avoid injury to the urethra. That this step of his technic is rational is supported by his claim that the prostatic urethra does not possess distinct walls exclusive of its mucous membrane. Further, R. claims that even total intracapsular extirpation is not possible in the strict sense, is not necessary to a good functional result, and that attempts to secure it involves a much more dangerous procedure than partial resection. Attention is called to Zuckerhandl's cases of attempts at total extirpation (*Wiener Klin. Wochenschrift* XLIV), in one of which injury of the rectum occurred during the operation, and in two ulceration of the rectum took place from pressure of the retained perineal tube during the after treatment, results which, as R. claims, could not have fol-

lowed if the posterior wall of the prostatic capsule had been allowed to remain.

As a further advantage to be secured by leaving the portions of the prostate adjacent to the urethra intact, R. claims that injury of the ejaculatory ducts may be avoided. These lie rather close to the urethra (a distance of six millimeters from the middle line of the prostate). This circumstance is certainly of importance, particularly if the operation of protatectomy is to be performed in the earlier stages of the affection, i. e., in younger men. The disease is not infrequently observed around the fifties, and men of this age or even those in the neighborhood of sixty, will scarcely tolerate destruction of their sexual function without protest.

The not infrequent occurrence of incontinence of urine following total extirpation of the prostate is dwelt upon at some length, and attention called to the fact that the prostate is not only a secretory gland, but performs a very important function as a muscular closing apparatus of the bladder.

R. claims that in partial intracapsular resection of the prostate benefit is derived from the subsequent cicatricial contraction, this contributing to secure a better passage for the urine. The operation will probably prove useless, however, in cases in which the enlarged median lobe forms the exclusive obstacle to urination.

Whether or not the method in question will be followed by recurrences remains to be seen. As observed by Riedel and quoted by our author, in case of recurrence the operation could easily be repeated. The most important point to be observed is that the operative attack shall be as dangerless as possible.

As to the indications for surgical interference, R. believes with Riedel that the operation should be recommended in the earlier stages of the affection. The earlier the mechanical obstacles to urination are removed the more perfect is the protection afforded against the disastrous consequences of such obstruction bladder wall and kidneys.

#### GROWTH OF THE BONES.

Dr. Paul Goden (*Recherches Anthropométrique sur la Croissance des Diverses Parties du Corps*) finds from a series of measurements of 100 persons between the ages of 13½ and 17½ years that the development of the long bones of the extremities proceeds with intervals of activity, alternating with repose, and alternate in adjacent bones, the arm remaining quiescent,

while the bones of the forearm are in a state of activity and lengthening. At the same time, repose in length may occur with an increase in the diameter of the bone. 36,000 measurements were taken and much new and valuable material has been gathered in the book 228 pages.

#### THE PHYSICIAN OF THE FUTURE.

The distinguished physician, Dr. J. Héricourt, is quoted in the *British Medical Journal* as supplying a remedy to relieve many of the complaints of medical men. The physician, he says, is placed in a false position in the public eye by the fact that he has to find his means of livelihood in the sufferings of his fellow men. Their prejudice thus excited can only be removed by a readjustment of the relation of the physician to the public. The maintenance of the highest standard of health in all the members of the community within his sphere of influence should be to him not only a source of pride but of profit. This in some measure already prevails. The physician of the army post and the ship surgeon best conserve the interests of those under their charge by having a small sick list, by discovering disease in its incipency and preventing its spread. School physicians likewise fill a needed position.

This principle should extend to families. Each household should pay a physician to look after the health of its members and servants. His aim should be to prevent illness, but if disease occurs he is better able to treat it intelligently from his previous knowledge of the patient.

Dr. Héricourt says that to fulfil the function he assigns to him, the physician of the future will need a different training from that which he now receives. His scientific knowledge must be of a higher kind, his judgment must be sure, his powers of observation sharpened by long practice and well directed attention. He will have to act on a correct interpretation of signs, on an exact appreciation of fine shades, on a logical prevision of consequences and probabilities.

#### TUBERCULOSIS OF THE LARYNX.

W. Jobson Horne (*Jour. of Laryng.*, Nov., 1903), from dead-house observations, makes the following statements:

1. When the larynx is infected with tubercle, the disease is already established in the lungs.
2. That by the time the disease in the larynx has advanced to ulceration, the disease in the lung has advanced to cavitation.
3. When the disease in the lung is confined to the pure miliary form, the larynx is never infected.



## Brooklyn Medical Journal.

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BROOKLYN-NEW YORK, MAY, 1904.

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### THE EXTINCTION OF MALARIA.

The fact is becoming more and more clearly established, as the admirable efforts aimed at extermination of the mosquito proceed, that the other link in the chain of malarial contagion, the extermination of the malarial parasite in infected individuals, must be more carefully looked to than in the past. This must be accomplished by the physician. The presence in the community of a number of individuals with chronic or latent malaria is a menace to the remainder of the inhabitants of that district, which the work of the mosquito exterminator, unless his work of annihilation be absolutely complete, fails to overcome.

The Transactions, just published, of the First General Convention, which met in New York last year to consider the extermination of the mosquito, show an enterprise and fertility of resource in prosecuting the object for which the meeting was called, which is altogether admirable.

Without wishing to detract from the work so far accomplished by this association, it is nevertheless our belief that many years must pass before an approximate approach to complete extermination can be accomplished even in circumscribed localities.

Meanwhile, every locality where mosquitoes are abundant has its malaria-infected inhabitants. For these individuals the physician might well be on the constant lookout. In malarial localities, cases of atypical malaria are most prone to occur. Cases of malaria which physicians are called upon to treat should, in view of the increased knowledge recently acquired of the life cycle of the malarial parasite, be those most carefully guarded from Anopheles lest they become carriers of infection to others.

The physician in the country districts may do

more to increase the salubrity of his town by guarding malaria-infected natives from the sting of the pestiferous insect until time has been given for a thorough course of anti-malarial physic, than the mosquito-destroyer by much more showy attempts to rid his district of mosquitoes is able to accomplish.

In certain districts where large uncultivated tracts must necessarily continue to exist, which hold within their limits numerous pools and breeding places for the mosquito, Anopheles will continue to flourish in considerable numbers for many years. In most localities the battle with malaria will be fought for a long time to come by the physician single-handed, who can well afford to dispense his anti-malarial specific and continue to closely scrutinize "suspects" as of old, while waiting for the mosquito-catcher to do his worst with Anopheles.

It is the belief of some that communities exist in which every individual is more or less afflicted with malarial contagion. We are not aware that such communities exist in the State of New York, yet it seems certain that malarial infection is more common than anyone but the physician supposes.

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### CEREBRO-SPINAL MENINGITIS IN NEW YORK STATE.

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The difficulties surrounding the accurate determination of the causes of this disease seem to have remained, up to the present time, insurmountable. From the article regarding the occurrence of this disease in Brooklyn, which is published in this issue, it is impossible to infer other than that the disease is more or less constantly present in this city. No doubt much the same conditions are true throughout other communities of the State.

During the past month the report has come to us of an epidemic of the disease at Malone, and at the present writing it may be said to have become practically epidemic in Manhattan.

The relationship between endemic and epidemic cases is still to be determined, and the whole general subject of etiology still remains vague. It is believed that a study of the disease, as it occurs throughout the cities of this State and of the United States, somewhat in such a manner as has been pursued in the present paper regarding its existence in Brooklyn, would be productive of a wider knowledge of its etiology and consequently of the methods for the prevention of epidemics of the disease.

### THE LAW GOVERNING THE SALE OF CARBOLIC ACID.

In the year just passed, a greater number of suicides occurred in the United States than in any previous year. Of these, more than one-half were accomplished by means of poison, and the poison in nine of every ten cases was carbolic acid. The reason for this is evident in that any difficulty in obtaining this poison is everywhere a practically fictitious quantity. Anyone can obtain carbolic acid. This is not as it should be.

A barrier should be placed between a temporarily deranged mind, momentarily bent on its own destruction, and the accomplishment of that act. Laws nearly everywhere exist regarding the sale of poisons. They should be rigidly enforced. Carbolic acid, particularly, should come under the ban. Its present loose method of distribution should be summarily discontinued. No way of accomplishing this is so effective as legal prosecution of the breakers of the spirit and letter of the law.



STEPHEN PAUL TRUEX, M.D.

The sudden death of Dr. Truex at the Bushwick Central Hospital on March 31st, 1904, was a sad occurrence. He was born on July 25th, 1855, at Owego, N. Y., his father being Edward

Hamilton Truex, of Albany, and his mother Harriet Elizabeth Sweet, of Owego. On December 25th, 1878, he married Emma Louise Carly. Two children were born of this union—Mary Emma and Edward Hamilton Truex.

His medical education was under the direction of Nathaniel Watson, M.D., and was received at the medical department of the University of Vermont, and the Long Island College Hospital, where he graduated, M.D. in the class of 1891, serving a term in the New York Post Graduate School. He began private practice in this city in 1891. Dr. Truex was assistant gynecologist to the New York Post Graduate Hospital and gynecologist to the Bushwick Central Hospital; a member of the Medical Society, County of Kings, 1892-1904; the Brooklyn Medical Society, 1895-1904; New York Post Graduate Clinical Society, and the New York Physicians' Mutual Aid Association.

WILLIAM SCHROEDER, M.D.,

Chairman Hist. Com.

### RESOLUTIONS CONCERNING THE DEATH OF DR. TRUEX.

At a meeting of the staff of the Bushwick Central Hospital, held in the Borough of Brooklyn, N. Y., on April 2d, 1904, the following preamble and resolutions were adopted:

WHEREAS, In His inscrutable yet divine wisdom, the Omnipotent Ruler of the universe has withdrawn from the arena of human affairs our associate and friend

*Stephen Paul Truex, M.D.,*

AND WHEREAS, The esteem in which he was held, not only by us, but by a wide and ever increasing circle of his professional brethren, and the long and faithful professional service he rendered this hospital make recorded recognition eminently fitting, therefore be it

*Resolved*, That the Staff of the Bushwick Central Hospital desires hereby to testify to his unselfish devotion to duty, ever genial courtesy, manly bearing, high professional attainments, and other sterling qualities which endeared him to those who were associated with him; it is therefore

*Resolved*, That the Staff hereby expresses its deep sense of the loss sustained by all connected with the Hospital, and also tenders its most heartfelt sympathy to the bereaved family; it is further

*Resolved*, That a copy of these resolutions be entered upon the minutes of the Hospital Staff, that they be published, and that an engrossed copy be sent to his family.

A. H. BRUNDAGE, M.D., Chairman.

A. SCHAUFE, M.D. W. F. CAMPBELL, M.D.

N. MATSON, M.D. F. E. WILSON, M.D.

Staff Committee.



## MEDICAL NEWS.

EDITED BY CLARENCE REGINALD HYDE, M.D.

*It is earnestly hoped that all members of the profession possessing news concerning themselves or their friends, which would interest others, will communicate the same to the News Editor before the 9th of each month. Items for this department should be sent promptly to Clarence Reginald Hyde, M.D., 126 Joralemon Street.*

Dr. Onslow A. Gordon, treasurer of the Medical Society, County of Kings, announces his removal from 666 Greene Avenue to 71 Halsey Street.

The marriage is announced of Dr. Arthur H. Bogart, of 139 Seventh Avenue, to Miss Blanche Turner, of Brooklyn. On May 1st, Dr. Bogart will remove to his new office and residence, 135 Seventh Avenue.

Dr. Elias H. Bartley announces the removal of his office from 21 Lafayette Avenue to 65 South Portland Avenue.

Dr. George H. Cruikshank announces the removal of his office from 206 South Oxford Street to 21 Lafayette Avenue.

Dr. John A. McCorkle, of 149 Clinton Street, professor of practice of medicine in the Long Island College Hospital, has been appointed from this borough as one of the consultants on the Advisory Board of the New York Department of Health. He is the only Brooklyn representative.

The Hoagland Laboratory announces its annual practitioner's course in bacterial diagnosis to begin Friday, April 15th, and to continue three days a week for a month. Dr. E. H. Wilson, director of bacteriology, will have charge.

The annual dinner of the Zeta Chapter of the Medical Fraternity, Alpha Kappa Kappa, was held Thursday evening, March the 29th, at the Assembly. Dr. Charles Jewett presided. Drs. McNaughton, Brinsmade, Campbell and Belcher were the guests of the evening. Alpha Kappa Kappa is a very flourishing secret society, represented in the different medical colleges, the Zeta being at the Long Island College Hospital.

We note with regret the death of Dr. George H. Hammond, of Freeport, Long Island, March 29, of pneumonia. He was born in Suffolk County in 1846, and practiced in Freeport from 1872. He was a member of the Queens-Nassau Medical Society, and had served on the surgical staff of the Nassau County Hospital at Mineola.

The annual meeting of the Suffolk County

Medical Society was held at the Griffin House, Riverhead, Thursday, April 28th, from 11.30 to 2 p.m. Drs. C. E. Wells, of Sag Harbor; H. B. Delatour, of Brooklyn, and William H. Ross, of Brentwood, presented papers.

Dr. J. E. E. Nielson has removed to 740 Union Street.

Dr. Earl H. Mayne announces the removal of his office to 132 Montague Street.

Dr. Francis H. Birmingham announces the removal of his office to 132 Montague Street.

Dr. William C. Woolsey announces his removal to 88 Lafayette Avenue.

The number of students enrolled this year in the Long Island College is 390, the largest in the history of the college.

The annual reunion and dinner of the Long Island College Hospital and Alumni Association will be held about the first of June.

Dr. Carroll Chase has removed from 191 Kingston Avenue to 1045 Prospect Place, corner of Kingston Avenue.

Dr. Walter B. Chase has been appointed visiting surgeon to "The Bethany Deaconesses Home and Hospital," on St. Nicholas Avenue.

Building operations on the new Long Island College Hospital have been indefinitely postponed, and extensive repairs are being made on the old building.

At the recent Republican primaries in March, Drs. R. L. Dickinson and C. Louis Fincke were elected delegates to the Republican Convention.

Dr. John Milton Holt (L. I. C. H., '95), of the Public Health and Marine Hospital service, has been invalided home from Manila, on account of amoebic dysentery. At present he is ill in the U. S. Marine Hospital, San Francisco, Cal.

Dr. Francis Le Roy Tetamore (L. I. C. H., '82), an army contract surgeon stationed at Altmonan, P. I., was drowned February 9th, 1904, by the capsizing of a native sail boat. There was a party of twenty on the boat, all of whom were saved except four. The bodies have not been recovered and probably never will be. Dr. Tetamore had been to these islands twice, only recently arriving after a vacation in the States. Dr. Tetamore was very popular and highly thought of. (Extract from letter of Dr. Holt to Editor.)

John D. Rockefeller has given \$500,000 to the Johns Hopkins Hospital. The gift is to prevent the curtailment of the usefulness of the hospital by the losses caused by the big fire. The money is given outright and will be turned over to the trustees of the hospital in whatever form they may elect.

At the last meeting of the trustees of Columbia University, Dr. William T. Bull, professor of surgery, tendered his resignation, to take effect June 30th. Dr. George E. Brewer, professor of clinical surgery, was assigned to a seat in the faculty.

The sudden and dramatic death of Dr. Stephen P. Truex, of 257a Madison Street, while performing an operation in the Bushwick Central Hospital, was a distinct shock to all his professional friends. He had not sufficiently recovered from an attack of grippe, and this, with an existing cardiac lesion, was sufficient to induce an attack of heart failure. Dr. Truex was born in Owego, N. Y., in 1856, and was a graduate of the Long Island College Hospital. He was a lecturer in the Post Graduate Hospital and a founder of the Bushwick Central Hospital in 1893. He was a member of the Kings County Academy of Medicine, Pathological, Brooklyn Surgical, N. Y. State Medical, and the State Surgical Societies.

Plans for the large pavilion to be built for St. Luke's Hospital by the Plant Estate have been filed with the Building Bureau by Ernest Flagg, the architect. The building is to be ten stories high and will adjoin the great hospital building crowning Morningside Heights, opposite the cathedral site. It is to be fireproof, fully equipped for general hospital purposes, and will have a large roof garden. The building is to have a frontage of 126 feet and a depth of 80 feet, and will have façades of marble and granite at the two lower stories and ornamental brick above. The cost is estimated at \$400,000.

In a letter to the Board of Health, Nicholson & Co., of No. 150 Broadway, urge the policy of stationing in office buildings a regular physician for cases of emergency. The letter says:

"In our judgment there should be some city ordinance compelling every office building in the city, and especially downtown, having floor space, say of fifty thousand square feet, to have on hand at all times a regular physician, as it almost daily happens that some one is taken suddenly ill and no doctor can be found."

The epidemic of typhoid fever which prevails and has existed in Philadelphia throughout the winter, instead of abating as was expected, is spreading, and has assumed such proportions that the health authorities have become alarmed. The outbreak is due to the unwholesome character of the water, but the officials are unable to suggest a means for remedying conditions, except to boil all water used for drinking purposes. One week the new cases reported to the Bureau of Health numbered 389.

## BOOK REVIEWS.

MANUAL OF THE PRACTICE OF MEDICINE; Prepared Especially for Students. By A. A. Stevens, A.M., M.D. *Sixth Edition, Revised and Enlarged.* Philadelphia, New York and London, W. B. Saunders & Co., 1903. 556 pp., 12 mo. Price: Flexible leather, \$2.25.

This excellent manual enjoys a deserved popularity with students, for whose use it is primarily intended; but the practitioner also may find it a handy volume at times. The present edition, the sixth, has been reset, enlarged, and thoroughly revised, without loss of the clearness and conciseness of the earlier editions. A number of the articles, and especially those in the Section on Diseases of the Digestive System, have been entirely rewritten. This book is probably the best of its kind.

GLENTWORTH R. BUTLER.

THE ACID AUTOINTOXICATIONS. By Prof. Dr. Carl von Noorden and Dr. Mohr. New York, E. B. Treat & Co., 1903. 80 pp., 8vo. Price: Cloth, \$0.50.

This, the fourth of the von Noorden monographs on subjects connected with the diseases of metabolism and nutrition, measures up to the high standard of the previous numbers. In this small volume are considered the autointoxications due to the over production of acids, whereby the necessary alkalinity of the blood is endangered, in particular that of B-oxybutric acid, diacetic acid, and acetone. It is an exceedingly valuable contribution to a subject which, although within somewhat narrow limits, is of great interest.

GLENTWORTH R. BUTLER.

PRACTICE OF MEDICINE. A Text-book for Practitioners and Students, with Special Reference to Diagnosis and Treatment. By James Tyson, M.D. *Third Edition.* Philadelphia, P. Blakiston's Son & Co., 1903. 1240 pp., 3 pl., 8vo. Price: Cloth, \$5.50.

As proved by the issue of a third edition, this Practice of Medicine has found favor with the medical public. The present edition has been thoroughly revised, partly rewritten, and entirely reset. The principal additions and alterations concern the subject of infectious diseases. The section on nervous diseases has been brought to date by Dr. W. G. Spiller; and the article on Dysentery by Dr. Simon Flexner. In consequence of the labor expended in its revision, this book continues to be a satisfactory presentment of the subjects embraced in its title.

GLENTWORTH R. BUTLER.

ORGANIC NERVOUS DISEASES. By M. Allen Starr, M.D., Ph.D., LL.D. N. Y. and Phila., Lea Bros & Co., 1903. Front., vii, 17-751 pp., 10 pl., 15 col. pl. 8vo. Price: Cloth, \$6.00; Leather, \$7.00.

The title, "Organic Nervous Diseases," limits the scope of this work, so that hysteria, neurasthenia, writer's cramp, mental diseases, paralysis agitans, chorea, etc., receive no systematic consideration. While this may make it less a favorite with students, it is all the more instructive and valuable as a reference work for practitioners. The illustrations are numerous, excellent and useful. Treatment is one of the best features of the book, Dr. Starr's therapeutics being in almost all cases specially trustworthy. More or less resumé of the anatomy are included.

His statements and discussions are very clear and correct. In a first addition occasional slips are to be excused. A few questionable points may be referred to. The name usually spelled Gerlier, he makes (p. 680 and index) Gertier. Under "Cerebro Spinal Meningitis," p. 721, he says: "The mind is always clouded and filled with illusions, and the patients have no memory of what has occurred when they recover." Yet in some and relatively not infrequent cases, the mind keeps fairly clear or the delirium is intermittent and not dominating, and the lapses of memory prove to be slight. The consideration of Multiple Neuritis and Tuberculosis is in place, although the special symptomatology often present is not emphasized. The statement on p. 181 that "Babinski's reflex is always to be elicited when the tendon reflexes are exaggerated," seems sweeping.

As a whole and within its chosen scope, the volume deserves exceptional commendation.

W. B.



# BROOKLYN MEDICAL JOURNAL

VOL. XVIII.

BROOKLYN-NEW YORK, JUNE, 1904.

No. 6.

## ORIGINAL ARTICLES.

### THE CARE AND TREATMENT OF THE ALLEGED INSANE AT THE KINGS COUNTY HOSPITAL.

SIDNEY D. WILGUS.

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In New York State the indigent insane are committed to the State Hospitals for the insane at the expense of the counties. In populous communities, economy, efficiency and humanity, demand the establishment of psychopathic wards or pavilions. In these, the alleged insane are held pending mental examination, legal commitment and transfer to the State institutions. For several years provision for the detention of such cases has been made at the Kings County Hospital, but, until recently, they were placed with the alcoholics, in dark, unsanitary wards. There, with poor food and no nursing force, under the supervision of a "keeper" and a few convalescent alcoholics, restraints, hypodermics and physical abuses were many and comforts few. Within a few years marked changes for the better have been made, and a short description of these and of their present surroundings and treatment may be of interest.

The first step in advance was taken about four years ago, when Dr. Duryea, superintendent of the hospital, set aside two old buildings as "Observation Wards." Beginning with this recognition of the insane as a class by itself, under the influence of Dr. Duryea and others, improvements followed each other rapidly, and now attached to this hospital there exists a psychopathic pavilion of modern construction in which patients are treated by modern methods. The second step was taken when the contract for this new building was let in 1901. It was built of fireproof construction, and was occupied in May, 1903. About this time, the number of employees was increased and the next advance was made. This was of the greatest importance beyond doubt,

since it is well recognized by those who care for the insane, that up to a certain point the use of hypodermics and restraints and the frequency of physical abuses decrease as the number of employees increases. The number of day employees has been increased from four to eight, and of night employees from two to four. Only those of experience are employed, and an increase in wages has permitted selection from a superior class. That old but unreliable standby, the thirteen-dollar-a-month alcoholic, is no longer considered. A fourth step was marked by certain changes in ward furnishings, including the introduction of table-cloths; the displacement of benches by dining-room chairs; the use of glass and china, knives and forks and metal spoons, whereas, formerly only agate ware and tin spoons were used; and last but not least, a decided improvement in the quantity and quality of the food. In the ward for women, table-covers, plants and reading matter have been introduced, and in the ward for men, newspapers cards and games. The fifth and last step consisted in the appointment of a resident physician. He was to reside on the premises, to be on call at all hours of the day and night, to have control of the selection and the management of the employees, to prescribe and overlook the care and treatment of the patients, and to assist in the examination and commitment of those found insane. Formerly medical care was in the hands of the internes. They changed services frequently, and no sooner did one become acquainted with his duties than another displaced him. The employees were controlled through another department, and only too frequently the orders of the physicians were ignored. The system was at fault. The physicians did their best under the circumstances, but for good, or even tolerable results the supervision and control by a permanent head was deemed indispensable. It was decided that the one in charge should be a resident physician trained in the care of the insane in the State hospitals; that he should be an examiner in lunacy, and that he should have absolute control of the employment and dismissal of

the members of his nursing force. The more there is detracted from these qualifications and powers, the greater the danger of a mediocre standard of care and treatment.

That the combined results of these changes have resulted in benefit to the patients is beyond doubt. The surroundings are certainly more pleasant, and now are sanitary and bearable. The number of restraints has been reduced 85 per cent., and the number of hypodermics of powerful sedatives in the same proportion. The patients as individuals receive careful attention and good nursing under the supervision of the nurses in charge, each of whom has had ten years experience in the care and treatment of the insane. Let it be remembered that before the institution of these reforms, the insane were treated not as a collection of units, but as a class: the individual was lost, and such a point of view naturally led to treatment of inferior quality.

Notwithstanding these advances, by no means do all cases take kindly to detention. Notoriously, a large percentage of the insane fail to realize their mental infirmities and demand freedom of action. This feeling necessitates legal recognition of, and legal provisions for, forced detention. A recent damage suit brought by an insane man was decided in favor of the superintendent only when the fact of the legal apprehension of the plaintiff was established. The patients are apprehended in compliance with the law, and in most instances this duty is performed by a special officer detailed for that purpose. With the assistance of a nurse he transports 85 per cent. of the patients from their homes to the hospital in a coach furnished by the Department of Charities. Until recently he went alone and often used handcuffs. With the assistance of a nurse at hand that proceeding has been rendered unnecessary. We must bear in mind that these people are not criminals and should not be treated as such. The remainder are brought to the hospital by the police. Of the 1,250 cases handled during 1903, 60 per cent. were brought from home, on application to the Charities Department by relatives, 16 per cent. were transferred from other hospitals, and 23 per cent. came from the jails of Kings and Queens. Each day, until committed or discharged, each patient was seen by the examiners in lunacy. If found uncommittable, discharge promptly followed. If insane, commitment was made at once. Where a reasonable doubt existed, the case was held over for further observation. No case was held longer than ten days.

The care accorded the patients may be divided into two classes, viz.: That by the nurses and that by the physician. Really no such division of treatment exists, for the care given by the nurses is prescribed and overlooked by the resident physician. Briefly, proper custodial care consists in handling the patients in the best manner possible under the conditions. The insane are irresponsible and are treated accordingly. Many things for their good have to be done against their wishes, but steps are taken to insure kind and considerate treatment. As previously noted, only nurses and attendants of experience are employed. Even then it is necessary to instruct and correct. The price of a good service is eternal vigilance. The work is trying, the provocation often great, and not ordinary kindness is demanded of employees, but unusual fortitude in the presence of trying conditions. The average employee possesses a full share of the milk of human kindness, but more than a full share is demanded. To obtain this condition, constant effort is required on the part of the physician in charge. All complaints from patients are carefully investigated, and any employee falling below the standard is dismissed. No excuse for rough behavior is accepted. At the same time, due consideration has to be given the fact that the insane make frequent unfounded complaints, as a result of their deranged mental condition.

To a great extent, mechanical restraints are superseded by the watchfulness of trained employees, but on account of peculiar local conditions, and desirable as such a step may be, the use of restraints and hypodermics can not be abandoned. The wards are small and into them are taken cases representing all forms of insanity. In the interest of quiet patients, a violent maniac can hardly be allowed liberty of action. For the sake of all, physical restraint is necessary in these cases. Neither can a patient be permitted to rave and shout day and night. Not only are others put to a great strain at a critical period in their disease, but with the patient exhaustion and death quickly follow. He must be quieted, and if sedatives are refused by mouth they must be administered by hypodermic. These, as well as the restraints, are used only on the written order of the physician. For restraining purposes, ordinary bed sheets and surgical bandages are used and applied by skilled employees: they are painless yet efficient. The use of straps, muffs, straight-jackets and handcuffs was abandoned when the number of employees was increased.



There are no "padded cells" in the pavilion. For sedatives, paraldehyde, trional, sulfonal, bromides and chloral are used, but this use is avoided as far as possible. As noted, certain cases demand morphine and hyosine administered by hypodermic, but with these improved methods of treatment only one-sixth of the former number of hypodermics are given.

One of the many trying duties of the nurse consists in the exercise of constant vigilance. Three hundred suicidal cases were under observation during the year, and in the pavilion several suicidal attempts were made. A hundred homicidal cases were treated, and a number made homicidal assaults on the employees. Yet the year passed without serious accident.

Thanks to the stories of the "yellow press," modern efforts toward the proper custodial treatment is not appreciated by the ignorant. The majority of the cases come from among this class, and the plea, "Please do not beat him too much," is not an uncommon one. To overcome this prejudice, inspection of the pavilion and its methods is open to all visitors. The patients are encouraged to correspond with friends, and to make such complaints to them as they think necessary. When the friends call, the causes of such complaints are explained in their true light, and, as a rule, to the satisfaction of all. Frequent visits are made by the superintendent or the deputy superintendent and by the visiting neurologists. The Commissioner of Charities calls at intervals, and also a representative of the State Charities Aid Association. Each month, the grand jury inspects the building, and inquires into the care of the patients. All of these visitors have the power to recommend or to order changes made in the care or treatment of the patients.

The medical care consists in the administration of extra diet, bitter tonics, iron, sedatives, cathartics and such general therapeutic measures as individual needs indicate. Of course, medicines are given only on the written prescription of the physician. There is no "sure cure" for insanity, and general measures are followed until the patients are turned over to the State hospitals, where massage, regulated exercise, electricity and hydrotherapy are practised. However, that this is a hospital ward as well as a detention pavilion will be shown when the statistics are presented. The physician is the responsible head of the pavilion and must know his patients and their needs in every respect. He must instruct the employees, maintain discipline, and be ready in

every way to further the interest of his charges. Of the utmost importance is the treatment of each case as a unit.

Thus far, the measures concerning general treatment have been discussed. Now arises the question of the disposition of the patients. Most of them are insane and require commitment to the State hospitals, but with many, such a course is not desirable or necessary.

The solution of the advisability of commitment is essentially a medical problem. Two qualified examiners pass on the competency of the alleged insane. One of them is the resident physician who has them under constant observation, and the other is a visiting examiner. A great degree of care is necessary, and the judgment is often taxed. A rule is followed to commit only those who can be proven insane before an unprejudiced person. Another rule is to hold all cases at least twenty-four hours before passing on them, and this is important, as in the meantime many temporary alcoholic and epileptic mental disturbances show themselves as such. Of the total number examined last year, 25 per cent. remained uncommitted, and of these an explanatory note will be made later. One possible attempt at "railroading" (the bugbear of the ignorant) on the part of relatives came to our attention. The usual legal proceedings were followed in all cases and whenever desired, committed patients were sent to court to interview the judge.

Notoriously, statistics are dull reading, but from the sociological point of view, a few words regarding figures may prove of passing interest. Of the total number of cases, 60 per cent. were of foreign birth, 25 per cent. were of foreign parentage, and in 15 per cent. the parents were natives. Twenty-six nations had representatives. One-fourth of the cases were Irish, one-third German and the other nationalities were represented by less than 10 per cent. each. The length of residence in America of those foreign-born varied from one day to seventy years. The average residence here was twenty years, but 4 per cent. had been in this country less than three years, and whenever practicable these cases were deported by the State.

In Brooklyn, insanity is increasing more rapidly than the growth in population would justify. According to Dr. Schenck, about 300 cases were committed in 1890; 600 were committed in 1900 and 850 in 1903; last year 450 were sent to the State Hospital at Kings Park, 200 to Flatbush

and 200 to Central Islip; 2 were sent to the homeopathic hospital at Middletown and 4 to sanitariums; 385 were males and 465 were females.

Of the uncommitted, 42 were sent to the Home for the Aged as dotards—a class refused admission into the State hospitals; 82 were sent to the medical wards suffering with delirium of somatic diseases; 87 were returned to the jail from whence they came, and these represented a class well treated in such a pavilion, viz., the temporary alcoholic confusions. Thus, this was a hospital pavilion as well as an observation pavilion, for to all intents and purposes, such patients were suffering from a psychosis of short duration, were treated here and recovered. A few idiots were sent to Randall's Island. Of those returned home, the greatest number represented forms of mental degeneracy other than insanity. Still, a considerable number of those insane were taken home by relatives against advice, but no patients dangerous to themselves or others were so discharged. These included a hundred and fifty cases. Sixteen patients died of intercurrent diseases or of exhaustion of acute insanities.

Here ends the hasty and necessarily incomplete discussion regarding the present day care and treatment and the disposition of the alleged insane of this borough. In conclusion, a few words regarding the desirability of such pavilions are added.

Authority for the detention of the alleged insane is obtained from chapter 68 of the insanity law of the State of New York. There are but two county pavilions in the State, and both are in New York City. A psychopathic pavilion for treatment is attached to the Albany General Hospital, but the county has neglected to provide for the temporary care of those patients who can not be treated in the local hospital. All populous counties should be caused to provide observation wards. They are necessary from economic and humanitarian points of view. Large numbers can be handled through them at small cost, but what is more to the point, they furnish a "safe and comfortable place" for the patients. The disadvantages attached to examination in the homes of the indigent and in jails are obvious. In addition, the law states that unless dangerous, no person shall be held in a jail pending examination, but, in spite of this, in nearly every large city this law is disregarded; indeed, for violation of it we need go no farther than Brooklyn, for notwithstanding adequate provision of the care of the alleged insane, the judges of Kings and

Queens continue to send the committed cases to the jails for retransfer to the pavilion. From the courts to the jails they are taken in vans with disorderly characters, male and female, and with criminals of all kinds. In the jails they become covered with vermin, if not already so. Many are detained there over night. If the judges can be made to see light, direct transfers can be made through the police or the Charities Departments, and the patients thus saved this discomfort and disgrace. But in other cities, conditions must be worse, for the patients must be held in such surroundings until after commitment—a proceeding which takes two or three days to complete. There, left to the tender mercies of the police, handcuffs and straight-jackets are employed freely. The clause in the State law enacted last year is of benefit in some cases, as it allows violent patients admission into State hospitals for a limited time on the certificate of two examiners in lunacy, but the greater number—the quiet patients—must be held until all formalities are completed. Wherever practicable, psychopathic wards should be instituted, and in them the patients should be treated by trained resident physicians, with the aid of employees of experience. Then both the violent and the quiet patients can be treated as sick people in hospital wards.

Since this article was written, there came to hand recommendations made by Dr. Peterson, President of the State Commission in Lunacy, to the effect that general hospitals should be encouraged to provide wards for the temporary care of these cases. That such a course is not without danger to the welfare of the patients may be seen from the former care accorded them here, but doubtless if the hospitals take up this work, the Commission will see that the care is kept fully up to the standard set by the State.

In closing, the observation might be ventured that the care of the insane has yet to reach the point of perfection; but the tendency to treat them as irresponsible, sick individuals, and to separate them from the criminal and pauper classes has done much to improve their treatment and their surroundings. In Brooklyn, this has resulted in recent reforms, which, while on a lesser scale, might be compared with those which have taken the State a decade to complete. Let all charitably inclined persons hope there will be no back sliding and that, on the contrary, such additional improvements will be added very soon as will enable them to say, "There the insane get not 'good' but the 'best' treatment."



**THE COMING METHOD OF TREATMENT OF SALPINGITIS.**

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St. Mary's Female Hospital

In pronouncing a diagnosis of salpingitis, I dare say there are none among us but in the same breath advise removal of the diseased organs. It has come to be such a common occurrence to excise pus tubes, and, considering the nature of the work, the low mortality, we accept it as the only procedure. The presence of pus in the pelvis has been to the surgeon an absolute indication for the ablation of the offending organ. A consideration of some few cases of pyosalpinx refusing operation, or being subjected to simple evacuation per vaginam, the fair degree of health following little or no surgical intervention, and the many complaints of cases subjected to radical operation, have given me sufficient food for thought to bring it up as the subject of this evening's paper.

The text-books fail to consider anything but ablation, and in consulting the literature of the subject, I receive so little support for my views that I feel my cases must be unusual exceptions. Let us consider: Is salpingitis a disease which belongs entirely in the domain of surgery, taken in the narrow sense of operative treatment?

The fact that most of these cases find their way to the operating table sooner or later would seem to answer that question in the affirmative, but I shall endeavor to give reasons and figures for a negative answer. Professor Treub of Amsterdam, Holland, gives figures of 612 cases of salpingitis. Out of these 612 patients, 433 (70%) have been more or less completely cured without operative intervention—the duration of treatment varying from three weeks to several months, the average about six weeks. Of these cases there were about 20 who had been treated more than once in this manner, which would equal about 5% of relapses, more or less serious. For certain reasons, and in order not to exaggerate the results of non-operative treatment, let us say that a little over one-half of the cases of salpingitis necessitated no operative intervention whatever. The significance of this is clear, and it is important to emphasize it since in these modern times it is held a part of good surgery to remove the appendages when they are diseased.

Old and recent statistics afford us no means of comparison, for a score of years ago the differentiation between the different forms of pelvic sup-

uration was rarely made, and modern surgery steps in the moment one fears the danger is about to present itself.

The dangers of radical operations are known and appreciated by us all, and I will content myself with a mere mention of the chief dangers: First, death, estimated at 5% or 6%, at least; second, more or less chance of not giving complete relief to the patient; and third, the uncertainty of remote disagreeable consequences, which may be as troublesome, at any rate, as the complaint which will occasion the operation. It is impossible to fix the chances of complete cures by an exact figure. One must admit in every case that they are not at all certain, so that an operation the most radical in an anatomical sense is not always so in a clinical sense. It may be noticed that I retain the title "Salpingitis," as I consider it more comprehensive, including suppurative and non-suppurative conditions, as one is never sure of not finding a purulent focus in the inflammatory intra-peritoneal adhesions.

In ten years' service at the hospital where pus tubes form the bulk of practice, I have not seen a single death from perforation, and, judging from consulted publications of men with report of large numbers of cases, perforation of pyosalpinx is a rare condition, notwithstanding the statement of text-books that this is one of the dangers that threaten life.

To correctly place in your mind the severity of abdominal salpingectomies, I will quote a few statistics. Boldt had 7 cases of death in 67 pyosalpingectomies, 10.5%; 8 cases of death in 112 salpingectomies of all sorts, about 7%. Schaute, 17 deaths in 290 pyosalpingectomies, 5.8% mortality. Treub publishes two classes. In one his mortality was 21.8%; another class only 3.7%. The statistics can never tell us the proportion of unsexed women. With the glamor and excitement attending the operation subsided, with another brilliant achievement recorded for modern surgery, the patient is dismissed cured. Cured on the records, but oh, how different the result from the subjective symptoms especially viewed one year afterward. Why will the general surgeon spend weeks or months in endeavoring to save an arm or a leg, or even the distal phalanx of a finger, and the gynecologist without a second thought, without an attempt at preservation, remove the organs that make the characteristics of a woman?

I have avoided the word "conservatism," as it is misleading. The conservatism of to-day may be the radicalism of to-morrow. The most con-

servative man in the light of later knowledge may be radical. It represents a condition of the mind, and where is the physician or surgeon who would let it be known that he was other than conservative?

With this arraignment of our shortcomings of the present day, I will proceed to state the arguments for the coming method in the treatment of salpingitis. I will not consider all the operations devised and practiced to preserve the organs under consideration, but I do wish to advocate the advantages of posterior colpotomy. Colpotomy in 118 cases of pyosalpinx reported by Treub had given two deaths. J. Riddle Goffe reports 115 cases, no death, 10 pregnancies. For more than three years Treub has practiced colpotomy when there was indication for operative treatment of inflammatory tumors of the appendages. These were not selected cases, but rather the contrary. The two fatal cases were cases of acute infection, a mortality of 1.75%, against 5% or 6% of the radical operation. Of these 118 cases, the results, other than the two fatal cases, were 14 cases clearly poor result. Two of these cases refused a second colpotomy; one whose local condition presented nothing abnormal continued to suffer pain. Four cases were cured by a secondary colpotomy; 17 cases were of a tubercular origin; 31 other cases one year after operation showed 18 complete cures, 11 almost complete, and 2 unsuccessful, but they all have escaped the many miseries of the anticipated menopause, especially valuable, as 16 of the cases were under 25 years of age.

As to the method: The vagina may be opened anteriorly or posteriorly, the latter most usually. The cul-de-sac once opened, the identification by the sense of touch of the diseased appendages, the liberation of adhesions that may separate pockets of pus, and the use of the finger, scissors or bistoury on guarded finger to incise pus sacs. The tubal wall perforated, one tears the partition with the fingers. An antiseptic lavage and application of a tampon of iodoform gauze completes the operation, which is extremely simple.

What tubal collection can be treated by posterior colpotomy? In the French and German writers published statistics are found of all classes of cases, acute and chronic, small and large pus tubes, lesions easily accessible, and others situated high up, complicated cases of serous or purulent pelvio-peritonitis, and cases in which the cul-de-sac was free from any sign of inflammation.

It is not claimed that the results will be equally

good in all cases; that a certain percentage may be subjected to a secondary colpotomy, or even later to a radical operation, but there is a percentage of cures sufficiently large to compel the conscientious surgeon to afford his patient an opportunity to escape the new malady under the form of an anticipated menopause.

I do not claim it is as immediately satisfactory for the surgeon, but I dare say that when posterior colpotomy is practiced as extensively as is now salpingo-oöphrectomy, we shall only acquire that experience that is requisite to determine when we have completely emptied all pus pockets.

In conclusion, I can not do better than quote the same author in his summary on conservative surgery of lesions of the appendages. He says:

"1. Medical treatment suffices in at least one-half of the cases of salpingo-oöphritis. 2. Medical treatment being insufficient or contraindicated, one should never at the outset perform a radical operation of any sort. 3. The first operative stage should always be posterior colpotomy."

#### SOME CLINICAL VARIATIONS OF SARCOMA.<sup>1</sup>

WITH REPORT OF A RAPIDLY FATAL CASE.

BY E. B. MOSHER, M.D.

A few months ago the surgeon felt a distrustful hopefulness from the flirtations of the X-ray and radium, when it was his duty to diagnose a malignant disease, for surgery in the hands of the best surgeons has not been able to show conclusively too brilliant results in the cure of cancer. Though almost synchronously good surgeons have presented series of cases with satisfactory results and series of case with unsatisfactory results; still, on the whole, it is found that surgery, disappointing as it is at times, has made good progress in the treatment of cancer, relieving, and often curing, while the X-ray and radium apparently have failed to maintain what, a short time ago, promised to be a wonderful cure for malignant diseases. Yet I believe they have their places in the treatment of these perverted cellular proliferations, the importance of which will be determined by future scientific, clinical investigation. At present, it is certain that the X-ray relieves the pain of cancer in a most mysterious manner.

These growths of the mesoblastic tissues, nearly always sarcoma, are unquestionably of all new growths the most malignant, yet they occa-

<sup>1</sup> Read before the Brooklyn Surgical Society, February 4, 1904.



sionally show marked clinical freaks and we have reported cases of inoperable sarcoma going on to recovery or a marked stage of quiescence, while other cases limited in their area of apparent infection, walled off or incapsulated, and easily accessible surgically, where surgery has been properly employed, go on to a rapidly fatal termination either from recurrence at the scar or some other part of the body, as a result of metastasis.

My clinical experience with sarcoma has been gathered from the management and treatment of seven cases, the brief report of which is included below:

CASE I.—During the month of December, 1890, I saw Mrs. D., 45, United States, colored; history: always been well until a few months previous, when, after injury, a lump appeared on the outer side of left leg about two (2) inches above external malleolus; hard, painful and growing slowly. Examination showed this lump apparently springing from the periosteum, as the diagnosis was uncertain, and potassium had no effect; an operation was advised and consented to. Cutting down to the mass and through the periosteum the growth was easily subperiosteal, though evidently periosteal in origin. A piece was removed for pathological examination, and three of our very best known pathologists reported melanotic sarcoma, and amputation was advised, but patient refused. The wound, under palliative treatment, has, at times, been healed, but the greater part of the time has been a painful ulcer with a foul-smelling watery discharge; so this case of the most fatal cell form of sarcoma has not grown worse during the past fourteen years, but remains much the same, except an increase in the size of the bone approximating the growth, but with no metastasis.

CASE No. II.—Boy, 12 years of age, multiple sarcoma beginning in leg, but recurring successively in arm and other leg, chest wall and cranium. Early amputation seemed to do little or no good, and the patient died in less than two years, the pathologist reporting osteosarcoma, mixed cells. This case was first seen January 10, 1893.

CASE No. III.—Boy, 12 years old, osteosarcoma of left thigh; had been treated for hip-joint disease; operation, Wyeth amputation; died from liver involvement six months after operation and three years after beginning of symptoms. This case consulted me June 12, 1893.

CASE No. IV.—Round cell sarcoma of kidney; child, 4 years old; nephrectomy performed; child recovered and is well, when last heard from, four years after operation. Operation July 1, 1896.

CASE No. V.—Seen January 1, 1899; liquor dealer; age 44 years; giant cell sarcoma of upper jaw. Excision followed by rapid recurrence and death one year from first symptom.

CASE No. VI.—Sarcoma of breast; radical breast operation, with recurrence after three years in upper arm, involving the humerus, with other metastatic growths. Died August 17, 1903, from brain complications four years after diagnosis, having suffered the torments of the damned. In this case the X-ray was of great service in relieving pain, but seemed to hasten the growth.

CASE No. VII.—A case of sarcoma of kidney rapidly fatal; will be reported in detail below.

I have been especially impressed by the clinical variations in these cases, as some have resulted fatally in from three months to four years, and others are still alive, and it seems to me that the different kinds of sarcoma, as represented by the different kinds of sarcomatous cells, have uncertain effect on the progress of the disease. A peculiar resistance in the individual or the tissue, the various cellular combinations, the location of the growth and the organ involved, the age of the patient, the time surgery is employed and the thoroughness of it, the question of heredity which in sarcoma is a very marked factor, the effect of the X-ray if it does no more than relieve pain, are all factors which produce some clinical variations in sarcoma. When the kidney is involved with sarcoma, we reasonably expect more favorable results from an early diagnosis and by prompt, thorough surgical treatment, but even in these most favorable cases mortality is great. Gross reported out of 64 cases of sarcoma of the kidney, with a nephrectomy, 33 1-3 per cent. died as result of operations, and at the end of two years only five were living. Other surgeons report similar results.

It has been my pleasure in this society to listen to successful reports where at the very least some part of the management of the case would do credit to the surgeon. I am therefore much chagrined at my failure in this case of sarcoma of the kidney which I present to you to-night for discussion.

CASE No. VIII.—Male, 40 years old, married, U. S.; manager and secretary, patient on whom I had operated about four years ago for tuberculosis of right testicle, removing that organ, and the cord well up into the canal, apparently producing a cure (and there was no recurrence up to the time of death), consulted me at my office, October 19 last. Normal pulse and temperature, and symptoms of indigestion which he said came

on after walking six miles the day previous—had noticed recently that long walks brought on these symptoms. Shortly after he left my office I was summoned, saying that on his way home he had been attacked with a sudden sharp pain in his abdomen. Reaching him some two hours later, I found that he had a temperature of 103, pulse 120, and respirations 24—vomiting, pain, tenderness all over abdomen, with muscular rigidity, no localized pain or tenderness except at epigastrium. A specimen of urine was obtained, submitted to a pathologist for examination and reported normal—blood examined for malaria was negative, leucocyte count showed 18,000. Next day, October 20, all symptoms more favorable and the leucocyte count 11,000—the patient rapidly improved and seemed perfectly well in one week; several careful examinations of the abdomen showed nothing abnormal. The examinations were not as conclusive as sometimes because the patient had a fat abdominal wall (weight over 200 pounds), and was very ticklish.

He remained perfectly well, excepting some slight symptoms of indigestion, until November 14, when he again consulted me as he had noticed a lump on left side of abdomen. He had first noticed this lump in abdomen, which he said was increasing day by day, after a long automobile trip over the hills of Pennsylvania a few days previous. During the ride he noticed that the jolting of the car gave him some distress and tenderness in abdomen. The history was briefly as follows: Had had the operation referred to above, otherwise been well; in September paddled canoe 250 miles on Allabach River, making the 250 miles in six days and had no pain; during August and September had gained several pounds in flesh and had never felt better. Father died of cancer of liver (probably carcinoma) two years ago. Mother and other members of family all well. Examination, November 19th—a cheerful, healthy, robust looking man, well nourished, no temperature, normal pulse, normal respiration, reflexes normal, bowels regular, urine normal, containing no pus, no blood, no urinary symptoms, examination of blood for malaria negative, leucocyte count 9,000; no glandular involvement, some slight tenderness on left side of abdomen where an indistinct fluctuating tumor, about the size of a man's head can be readily mapped out—there is tympanitic percussion over the portion of the mass where the large intestine crossed and peristalsis can be easily noticed; locomotion not interfered with to any extent, no discoloration of skin. Diagnosis—with these symptoms arose the

question of diagnosis between hydronephrosis, pyonephrosis, tubercular kidney or malignant disease of kidney. From the fact that he had normal pulse temperature, that there had never been pus nor blood in the urine, that he had had an attack of acute pain one month previous which had subsided, that he had been perfectly well and gained in flesh until the attack one month previous, that the tumor was smooth and rapidly growing, varying somewhat in size, with little or no pain and locomotion not interfered with, led me to the incorrect diagnosis of hydronephrosis from an obstructed ureter.

*Treatment*—Nephrotomy was advised and performed on the 22d of November; using the oblique incision the kidney was easily and rapidly reached—there were some recent adhesions to the large intestine—when the mass was opened, with the fluid that escaped came a large quantity of what looked like disorganized blood clot of long standing. On further examination, with the hand entirely within the mass, large quantities of this broken down material were removed, leaving but a shell. Owing to the fact that the patient was taking ether so badly and the mass was so large, with some adhesions, nephrectomy was postponed for a secondary operation, though it was plain that there was more than the hydronephrosis. There being little hemorrhage, large drainage tubes were inserted into the centre of the mass and the patient put to bed.

There was great shock following the operation, though very little blood was lost, and for the first three days it was with difficulty that the patient's life was maintained. He gradually rallied until at the end of two weeks he seemed in a fair way towards temporary recovery and was able to sit up; he had had little or no temperature, was taking a fair amount of nourishment, and the mass had decreased very materially in size. Soon the mass began to enlarge and the mesentery glands became involved. The pathologist's report showed small round cell sarcoma of kidney (very malignant) and with the rapidly recurring and numerous secondary involvements, other operative interference was not undertaken.

The patient went rapidly from bad to worse, the whole abdominal cavity being a mass of tumors, and died from intestinal obstruction and general asthenia, December 26, thirty-five days after the operation and sixty-eight days after first symptoms of the disease. An incomplete diagnosis, unsuccessful treatment, and a wrong prognosis—"An Honest Failure."



**SOME CONSIDERATIONS IN RELATION TO SURGICAL PRACTICE AMONG CHILDREN.**

C. LE GRAND KERR, M.D.

There would be but little place for a paper with this title were it not for the fact that, coincident with the rapid advance of medical science, there has come a realization that special qualifications and study are needed more and more, in the realm of pediatrics.

The old idea of the child being a man in miniature, and receiving treatment as such, is rapidly becoming obsolete, and, in its place, there is a better acquaintance with that constantly changing being—the child.

It is possible to have an intimate knowledge of general medicine and yet fail in pediatric work. This fact is demonstrated daily.

Upon the other hand, an intimate knowledge of general medicine is an absolute essential to successful pediatrics.

In large measure this holds true in the field of pediatric surgery; there are conditions and problems presented which require more than an understanding of general surgery.

While I have no desire to complicate the situation, we have seen many cases where it would have been good judgment and better surgery if a pediatricist had been called in, to have considered the chances of operative relief, with the surgeon who knew the condition but did not know the child.

The examination should be conducted with combined gentleness and firmness; gentleness to win the confidence of the patient, firmness to show him that you are master of the situation.

There are no hard and fast rules by which we may hope to succeed in winning the child; one requires to be ignored for a time, another must be approached at once. Here is a fine opportunity for the display of tact.

All of the surgical affections of the child are largely influenced by that peculiar, anomalous condition of the child's constitution.

We cannot repeatedly disregard the tendency to an easily deranged digestive system, or overlook a nervous system which is very impressible to external influences.

Children are, in one sense, most irrational and irritable beings, requiring time, tact, and gentle manipulation to win them, but their confidence once gained they are much more tractable and patient than the adult.

The child's irritability is directed mainly against acute and sudden pain, no matter how caused. On the other hand, they live for the moment, and with a little judicious amusement they readily submit to protracted confinement to house or bed which would break the hope and health of an adult.

What surgical conditions are peculiar to children? This is a question that should be considered. Every surgical condition presents its own peculiar problems in the child, because of the subjects, constitution and peculiarities. But aside from this, the surgical affections of children differ from the adult in kind and degree.

There are many conditions which, because of their marked preference for the early years of life, are generally classed as affections of childhood. Practically it is better that they be classed as such; strictly speaking, they cannot be. Among these we might include rectal polypus, hypertrophied tonsils, and the almost invariable associated adenoids. Tuberculous disease occurs so frequently in children, and its ravages are so generalized, that it presents many conditions to the surgeon which do not occur in the adult, because of its preference for the pulmonary tract in that subject.

The varied atrophies, contractures, and deformities following anterior poliomyelitis come under this group. Also morbus coxarius.

Further than this we include prolapse of the rectum, which has not yielded to persistent medical treatment; macro-glossia, although that is usually congenital, and foreign bodies in the ears, nose, and throat.

Spinal caries, scoliosis, and genu valgum all show marked preference for the very young, although not always limited to the period of childhood.

Among the conditions which may be called surgical and limited strictly to the period of childhood, are the following:

Necessarily, all congenital deformities, as spina bifida, hare-lip, cleft palate, wry neck, tongue tie, and the many other malformations which are not so common. Dermoids and congenital cysts, sacro-coccygeal cysts, umbilical polypus, and pneumatocele cranii. Particular mention should be made of congenital dislocation of the hip, and congenital syphilis.

There is another class of cases which must be noticed: injuries, the result of parturition.

Retro-pharyngeal abscess, due to suppuration of the recto-pharyngeal lymph nodes, which

atrophy about the third year of life, constitutes a surgical disease of childhood. A remarkable accident sometimes occurs in the child, and is provisionally called subluxation of the head of the radius. The injury always happens when, with arms fully extended, the child suddenly throws its whole weight upon the arms.

All fractures in children deviate from the adult type. In addition to the traumatic fractures, which are not included in this list, we have congenital, ricketty, and the spontaneous varieties; epiphyseal separations. In the child there is one almost distinctive type of fracture, the greenstick, and one absolutely distinctive, epiphyseal separation.

Two definite forms of hemorrhagic disease occur in children: one hereditary, the other peculiar to the individual. The latter is in no way connected with hemophlegia, and not the result of injury.

The difficulties of diagnosis come mainly from the inability of the child to intelligently express its feelings, or accurately localize its pain. Added to this is a peculiar perversity with many children to hide certain conditions and to exaggerate others, especially of pain.

The result is the same. Unless we are thorough, we will overestimate or else undervalue the true conditions.

It is an easy matter to be deceived by a child, especially a wilful, struggling one, in regard to fracture; it is easy to overlook it.

Many times has the bellyache of spinal caries been attributed to digestive disturbances.

The same is true of the fever of acute infectious osteomyelitis.

Anatomical differences also are an element, especially the lack of prominence of the bony parts and landmarks from the overlying fat.

The chances of relief in any given surgical condition or injury in the child are excellent as compared to the adult.

Conservatism has a much larger place in the treatment than with the adult. A great deal is accomplished by putting the parts in such a condition and position that they will heal themselves. Rest, that important factor in all surgical conditions, shows its greatest potency in the child.

On the other hand, good things may be carried too far, and the desire to make use of this important factor of rest, may lead one into serious error. Common examples of this are the persistent medical treatment of tubercular glands, when they should be treated surgically and thoroughly if medical means are not prompt in their effect.

Hare-lip is better for prompt treatment. And what shall we say in extenuation of the destructive delay in joint disease?

Given the same intelligent surgical care, with the added precautions which the very nature of the child demands and which will be mentioned later, operative procedures and injuries in the young offer a more hopeful outlook than in the adult.

Three things are probably mainly accountable for this:

First—That the child is easily kept from mental depression.

Second—That the whole vital force is in excess of what is needed to establish a permanent economy.

Third—That the viscera are not deranged by dissipation, or even by the ordinary wear and tear of an active adult life.

Considering these three elements alone it would account in large part for the patient submission of the child, and also for the rapid repair which usually takes place after a surgical injury.

Then, too, the younger the child, the rarer are the secondary complications of a wound.

Given a healthy child and an operative procedure perfect in its technique, if the patient leaves the table alive the chances of recovery are practically assured.

It would be practically impossible to fairly and honestly demonstrate by any elaboration of statistics, the difference in fatality of injuries to children and those of adult life.

Perhaps the fairest approach we could make to such a proposition would be in a comparison of surgical injuries. Even here there exists questions of uncertainty and doubt. What was the previous health? Was the operative relief for disease or an injury? But admit the general inaccuracy of this method of comparison, there is enough evidence to show that, case for case, the child will give us the best result. Take the one instance of amputation. In the child it is as markedly successful as it is the reverse in the adult.

In considering results, we must of course bear in mind the relative disproportions of the child and adult bodies. A two-inch incision in a child is proportionately greater in the amount of tissue involved and in its results than a similar one in the adult.

There are four things which all children bear badly and which enter into every surgical consideration. In planning either operative or other surgical relief, these four must be provided for.



They are hunger, cold, loss of blood, and pain. It is a simple procedure to withhold food from an adult previous to the use of an anæsthetic, but a cup of warm but diluted milk given two or three hours before the anæsthetic, will do much to relieve the subsequent suffering of the child.

Circumstances will at once suggest the means to be employed to protect against the loss of heat. A child wrapped in cotton wool during and for some hours following the operation, will give a better result than one not so protected.

Guarding against loss of blood entails quick, decisive work, as well as the use of all the usual provisions against hemorrhage.

It has been clearly demonstrated that the loss of one ounce of blood in an infant equals in its effect upon the economy, the loss of thirty-three ounces in the normal adult.

We should never allow a child to suffer pain or loss of sleep which lessens its resistance after operation, unless that pain has a distinct diagnostic value.

The anæsthetic to use in any given case is a question of considerable import. The generally preconceived notion that children bear all anæsthetics badly, is not founded upon fact. For a shorter time they bear them better than the adult, but their long continued use results in a rapid collapse. This makes it imperative that we plan every operative procedure in children with a view to the most rapid work consistent with safety and perfect technique. When collapse supervenes, it is far more amenable to treatment than when it occurs in the adult.

I think that we state a popular idea when we say that every thing considered, the perfectly healthy child bears anæsthesia better than one with organic disease. Experience compels me to dissent from this.

If the organic disease is considered and the selection of the anæsthetic made with the same care which the presence of organic disease in the adult demands, healthy and unhealthy children bear it about alike.

The danger in children comes not so much from the toxic element, which varies with each individual and is apt to be more noticeable in the strong and vigorous subject than the weaker one, but from the asphyxial element, which is strongly predominant in the child.

Under two years this element is very strong, but between the ages of two and six rapidly lessens until, at the latter age as a subject for anæsthesia, the child approximates the adult with the one exception, that the anæsthetic is better borne,

due in part perhaps to the child's absence of mental irritability.

Nitrous oxide gas, with the bulky terror-inspiring apparatus which its administration entails, with its short period of anæsthesia excelled by other inhalants and its known tendency to asphyxial complications in children under five, need only be considered by this mention of it.

Ethyl bromide deserves a place which it practically does not occupy at present in pediatric work. The effect is quickly and safely obtained and is of short duration. The return to consciousness is uneventful and complete, leaving little or none of the after effects of the other anæsthetics. Its non-irritating character and the feasibility of its use in the upright position give it further advantage.

I believe that much of the adverse criticism of its use has been occasioned not by the effects of the drug, but its improper administration.

One great fault comes in the attempt to give it slowly. To get the best effects and results it should be given quickly, and with very little air. Occasionally there occurs a marked rigidity of the jaw muscles, and this puts a handicap upon it for throat work.

Ethyl chloride has, I believe, all of the advantages of the bromide, with none of the disadvantages. The period of anæsthesia is longer, there is no jaw muscle rigidity, and no special apparatus is required.

If the patient is old enough to give his co-operation and will breathe freely through the mouth, a period of anæsthesia of about one minute can be readily obtained in from fifteen to forty-five seconds.

For a three to five minute period, the inhalations must be pushed until the anæsthesia is deep. I have had no personal experience with a repetition of the inhalation with the object of prolonging the period of anæsthesia.

As regards the use of chloroform and ether, which we will consider somewhat jointly, the same general rules which apply to their proper selection and administration in the adult obtain in the child, with the added provision that more care is required.

It is perfectly possible, and in many cases desirable, to administer chloroform to a sleeping child. Under the age of two years, it is a dangerous agent to use unless the infant is sleeping, for then and only then do we get our best guide for its administration—the regular breathing.

Local anæsthetics have very little place in pediatric surgery.

They entail a certain amount of co-operation upon the part of the subject, and that we rarely can obtain.

Under general considerations, I wish in closing to draw attention to just a few points, and briefly.

The child is microbic. It must be removed from the sphere of the exanthemata. When the operation is a serious one, but there is no immediate demand for its accomplishment, the possibility of the child being then in the incubation stage of one of the infectious diseases should be guarded against.

When feasible it is well that the patient be removed from the influence of the parent also. This is desirable both for parent and child.

The temperature, which is watched more than anything else in the adult (post operation), is of little value in children and of none in infants.

It is readily disturbed by the slightest causes, and unless there is a permanent rise, or it is of a hectic type, it may be disregarded.

There is need of concerted action to convince the instrument maker that there is need of finer instruments for pediatric work. One has only to watch the comparative destruction of tissue which occurs when the ordinary hemostatic forceps are used on a child, to appreciate this.

The use of the common antiseptic solutions, as carbolic acid and the various other applications of like nature as iodoform gauze, have little, if any place among children, on account of the danger of poisoning to which they are susceptible.

It will not be out of place to state, in closing, this general and well-established fact. That the well-nourished child bears all injury and surgical procedure better than the adult, but that the poorly nourished child needing surgical relief, or the subject of extensive injury, is not one that will prove a source of encouragement to us.

## PROCEEDINGS OF SOCIETIES.

### MEDICAL SOCIETY OF THE COUNTY OF KINGS.

STATED MEETING, MAY 17, 1904.

The President, J. E. SHEPPARD, M.D., in the Chair.

The meeting was called to order and the minutes of the previous meeting read and approved.

There were about 150 members present.

## REPORT OF COUNCIL.

The following candidates for membership have been accepted by the Council:

R. M. Rome, L. I. C. H., 1901.  
E. C. Sullivan, Harvard, 1903.  
C. A. Lubrecht, L. I. C. H., 1901.  
M. T. Raub, L. I. C. H., 1897.  
R. Byington, P. & S., 1900.  
P. V. Costello, Yale Med., 1901.

## APPLICATIONS FOR MEMBERSHIP.

Applications have been received from the following:

Charles F. A. Francis, 673 Vanderbilt Avenue, University of Vermont, 1886.

Eudora Pierce, 184 Clinton Street, Woman's Medical College, 1894.

W. B. Brader, 1198 Bushwick Avenue, University of Pennsylvania, 1885.

Proposed by Alfred Bell; seconded by Tracy Clark.

## ELECTION OF MEMBERS.

The following having been duly proposed and accepted by the Council were declared by the President elected to active membership:

E. G. Hynes, P. & S., 1900.  
H. M. Sloat, L. I. C. H., 1887.  
J. H. Ohly, L. I. C. H., 1899.  
J. F. Crawford, L. I. C. H., 1903.  
J. C. Sharp, P. & S., 1901.  
J. C. Bierwith, P. & S., 1885.  
J. S. Read, L. I. C. H., 1902.

## HONORARY MEMBERSHIP.

Drs. C. K. Mills, of Philadelphia, and Thomas Darlington, of Manhattan, were nominated by the Council for honorary membership.

## DECEASED MEMBERS.

William Waterworth, Bellevue, 1878, member 1880 to 1904, died May 11, 1904.

## SCIENTIFIC PROGRAM.

1. Paper: How Far Shall We Treat the Gall Bladder as We Do the Appendix? By Dr. R. W. Westbrook.

Discussed by Dr. Ager; closed by Dr. Westbrook.

2. Paper: Perineal Prostatectomy, with Report of Cases. By Dr. Henry H. Morton.

Discussed by Drs. R. H. Green and Harlow Brooks of Manhattan, and Drs. H. E. Fraser, Pilcher, and Muren; closed by Dr. Morton.

Adjourned.

WM. S. HUBBARD,  
Secretary.



## THE BROOKLYN SURGICAL SOCIETY.

REGULAR MEETING, FEBRUARY 4, 1904.

SUTURE OF THE FACIAL NERVE FIVE MONTHS  
AFTER DIVISION.

Dr. A. T. BRISTOW presented a patient with the remark that it was one of those unfortunate cases which occur in the experience of the best of surgeons, in which, in the operation for removal of tubercular glands of the neck in the vicinity of the facial nerve, the nerve is severed, and a complete facial paralysis results. This girl was operated on by one of the best surgeons in the city five months ago, with this unfortunate result.

The interesting point about the case is the condition found at the time of operation, ten days ago. The speaker's purpose at that time had been to do the operation of Cushing, viz., to find the stump of the facial nerve, and then use either the hypoglossal or the spinal accessory, to suture the facial, in order to obtain the action of the motor fibres of these nerves on the muscles supplied by the facial. However, he was fortunate in being able to find the divided ends of the facial quite readily in the cicatricial tissue.

He had an electrode in one hand and the other pole of the electrode was on an indifferent point on the child's back. When the electrode was passed over the loop of the nerve, he got no reaction from the facial muscles whatever, due doubtless to the fact that a nodule of cicatricial tissue, perhaps as big as a kernel of wheat, was interposed between the axis cylinders; but when he touched the point of the muscle beyond the nodule in the loop, there was a prompt contraction of all the facial muscles. He cut out the scar segment, and sutured the two cut ends together with fine silk, and closed the wound. He had turned up a semi-circular flap, so as to expose the entire length of the facial nerve. The one thing that was of great value in the operation was being able to determine exactly the point where the conductivity ceased in this nerve. He had not expected to find any condition like this, but had expected to hunt for the stump.

The operation was done two weeks ago, and there is some slight evidence of regeneration of the nerve. When the child laughs or cries, the entire face is drawn to one side, but when she closes her eyes the lids on the affected side are but slightly separated. If she tries to whistle,

there are feeble contractions on the part of the orbicularis oris on that side. These are evidences of repair, and Dr. Bristow expressed himself that in six months he believed this little girl would have the facial muscles on the left side under control.

He said that it illustrates to his mind the necessity of prompt operation in these cases of surgical facial paralysis. We are not always fortunate enough to find the nerve as readily as in this case, and then the operation of Cushing must be done.

## CONGENITAL HERNIA OF THE LIVER.

Dr. W. S. SIMMONS, Jr., presented a patient, referred to him by Dr. Kinne on March 19, 1902, on the second day of its life. There is another child in the family that was perfectly formed at birth, and is now a well-nourished, healthy boy. On examination of this patient at birth, a protrusion about two inches in diameter was found at the umbilicus and slightly above it, covered only by a thin membrane; the bulging mass itself was of a firm, solid consistency. The next day the patient was taken to St. John's Hospital, and a circular incision was made around the mass and carried down to and included the peritoneum. The contents were found to be nearly the whole of the left lobe of the liver and a small portion of the small intestine. The covering membrane was intimately adherent to the capsule of the liver, and much of the capsule was torn away in removing it.

Hemorrhage from the liver surface was rather troublesome, and could be controlled only by application of the actual cautery. The peritoneum was then brought together with catgut and the skin and muscles with interrupted silk-worm gut.

No anaesthetic was used, and there did not appear to be much shock following the operation.

The patient remained in the hospital for about three weeks, as the wound suppurated down to the peritoneum. During the last week in the hospital, there was a marked loss of flesh; and as the patient only weighed, at the most,  $5\frac{1}{2}$  lbs., it was decided to return him to his mother to be nursed. From that time there was a steady gain in the infant's condition, with the present result.

The only unusual part of his history being a rather late attempt at walking and a pronounced anemia that has persisted ever since his birth.

*Discussion.*

Dr. J. M. CLAYLAND asked what was the necessity for such an operation. In a child two days

old, with an incomplete abdominal wall and a good skin covering it, he would expect to grow up without any apparent hernia being left. An operation on a child, even without an anæsthetic at that age, is serious, and the same result might be accomplished without operation. Dr. Clayland once saw a child in which there was a protrusion in the median line; he would not say the liver was in it, but loops of the intestine were, and the abdominal wall eventually closed in, making a good abdominal wall without operation.

Dr. L. S. PILCHER remembered having seen one or two cases of this kind many years ago, but they all died without any operation. He thought these cases usually are associated with other failures of development. This particular case is noteworthy in the absence of any other defect.

#### INTESTINAL OBSTRUCTION DUE TO BAND.

Dr. W. S. SIMMONS, Jr., also presented a man, aged twenty-eight, who had had a reducible left inguinal hernia for several years. On January 30, 1902, while at work, the hernial contents descended, and could not be returned to the abdomen. There was marked pain at the time, with vomiting. He managed to return to his home and called in Dr. Simrell that evening. The following morning Dr. Simmons was asked by his physician to see him, and found his condition to be as follows:

Severe pain over lower abdominal region, with vomiting; absolute constipation; tense rigid abdomen and a marked tumor occupying the right inguinal and hypogastric regions, simulating almost exactly a distended bladder. His pulse was 100 and temperature normal.

The hernial contents had returned to the abdominal cavity a short time after the patient went to bed. A catheter was inserted into the bladder, and only about two ounces of urine obtained.

The case was evidently one of acute intestinal obstruction; its cause probably the reduction *en masse* of a piece of twisted gut in the hernial sac. Operation was advised, but declined. His symptoms grew worse, and he was taken to St. John's Hospital that evening, anæsthetized, and a median incision was made opening the peritoneal cavity.

Immediately there was an escape of quite a quantity of blood-stained fluid, and the tumor proved to be several coils of immensely distended and thickened intestine, of a dark, almost black, mahogany color. The cause of the obstruction to the bowel was found to be a band about two

inches from the cæcum, tightly binding down the ileum.

This band was divided, and under copious irrigations with hot saline solution the color returned to the intestine to such a degree that it was considered safe to return them and close the abdomen.

Just before tying the sutures, however, Dr. Simmons again looked at the bowel, and found it had returned to its original condition, 33 inches of the small intestine were resected, the ends approximated with a Murphy button, and the wound closed.

The peculiar features of this case were the absence of post operative shock, and the trouble in convincing the patient that he was in a serious condition, as he felt so well the next morning that he wanted to return to his business. The convalescence was uneventful, the button being passed on the seventh day. He is now in good health, and has never felt any inconvenience from the loss of his intestine.

#### PERITONITIS COMPLICATING TYPHOID FEVER.

Dr. T. B. SPENCE reported the case of a patient, a man 22 years old, admitted to the hospital on the fifth day of typhoid. There was nothing unusual during the first two weeks of the fever, though the patient was very ill all that time, his temperature reaching 105° F. for a number of days, and at one time going up to 105.6° F. His pulse was 130 per minute, and became very feeble at times.

There was some distension of the abdomen during the second week, but on the 16th day this suddenly became much greater, and vomiting supervened. Small quantities of gas and feces were passed at rather frequent intervals. The patient was shivering and delirious, and seemed on the point of collapse, but gave evidence of extreme tenderness on pressure upon the abdomen. Dr. Mead, the attending physician, believed that intestinal perforation had probably taken place, and recommended opening of the abdomen, which was done as soon as possible.

When the peritoneum was opened and the intestines were handled, gas gushed out of the rectum in great quantities, with the result of immediately reducing the amount of distension to a marked degree. The peritoneum was reddened and there was a small quantity of sero-purulent fluid bathing the whole peritoneal surface. A careful search failed to disclose a perforation. The fluid was sponged out and the wound was closed.



The rectal tube was used every two hours and each time brought away much gas and some feces. On the next day there was a large movement of the bowels, and the abdominal distension disappeared, the pulse and temperature dropped, and the general condition of the patient was greatly improved. From that time on he pursued a typical course of typhoid fever without complications. At the end of the sixth week the temperature became normal, and convalescence was uninterrupted.

#### *Discussion.*

Dr. A. T. BRISTOW said that before he examined the first temperature chart which was passed around, he was of the opinion that that was one of those cases of which Fitz had reported quite a number, in which the symptoms of perforation have occurred, and nevertheless neither operation nor autopsy has disclosed a perforation. He said that he should be more apt to believe that there was no perforation, were the statement made after the autopsy, than he would be after the operation. It is perfectly possible, however, for a peritonitis, such as has been indicated here, with a thin sero-purulent secretion, to occur without any perforation, the ulceration eating through the coats of the intestine perhaps until the peritoneum was exposed, then the bacillus coli communis, migrating through the peritoneum, sets up a relatively mild peritonitis.

He had shown that this occurs, and obtained pure cultures of the coli communis from a case in which the intestine had been infected previous to the operation, and it was his opinion in listening to this case, that some such mishap occurred.

When one examines the chart, however, there is evidence that leads us to believe that a perforation did occur, but that it was small and became sealed by plastic exudate. First of all, the pulse suddenly went up to 180 from 120, and on the day after there were two distinct chills. He believed that these indicated a minute perforation of the intestine, the shock and the chills together indicating the anatomical condition.

He did not understand how soon after the occurrence of supposed perforation the patient was operated on, but he said that, in reference to this, Keen thinks the second twelve hours is more favorable to operate in than the first twelve. Keen believes (and he has had more experience than any one else in that class of work) that cases operated on in the first twelve hours do not get

well because they do not react from the shock. The second twelve hours is the best time to operate.

The natural tendency of every surgeon when he fears a perforation has occurred, being mindful of the fatal consequences of fecal extravasation, is to operate as soon as possible. Nevertheless, the experience of Keen seems to show us that we ought in these cases to hold our hand for a few hours until the patient has recovered from the shock of the perforation, and be able to stand the additional shock of the laparotomy.

Dr. T. B. SPENCE said that the chart showed that the sudden rise of pulse was immediately after an attempt to give a tub bath, and he thought both of the chills occurred immediately after an attempt to give a sponge bath. He knew that these pin-point perforations occur, and it could easily have been present in this case, although he was unable to find it.

Dr. L. S. PILCHER said that the discussion had been dealing with these cases from the standpoint of conjecture rather than demonstration, and continuing the discussion on that line asked if it was not more rational to assume extension of infection through the weakened non-perforated bowel-wall as having been present? He was inclined to think that such cases are not so very infrequent, that is, cases in which infection takes place without perforation, by transmission through a weakened, thinned, infected intestinal wall of sufficient amount of infecting material to produce the peritonitis without even a minute perforation. Such a condition is more probable than the occurrence of a minute perforation which is assumed to become plugged up, or to cease to enlarge and become innocuous and unrecognizable.

In cases of typhoid fever, surgeons are frequently consulted as to the possible presence of a perforation where there has been a very marked increase in the local abdominal symptoms, but waiting, after a bit find that these symptoms gradually subside, and the course again of an uncomplicated typhoid is resumed. No operation is done, no autopsy possible, to determine just what did take place. May not the explanation of these cases be by a transintestinal infection and a peritonitis, but without a perforation?

#### PYEMIA: RECOVERY.

Dr. T. B. SPENCE reported the case of a young woman who, a few days before admission to the hospital, had had an attack of follicular tonsillitis. On admission, she complained of headache, gen-

eral abdominal pain, and had a temperature of  $103.6^{\circ}$  F. The abdomen was somewhat distended and tender; chest negative; throat clear and tongue coated. The leucocyte count was 9,400, and the Widal test negative. The next day she had slight epistaxis, vomited, and complained of feeling chilly. On the fourth day she had a chill and complained of tenderness of the left forearm. The leucocyte count was 9,000, and a positive diazo reaction was obtained. The temperature during this time was irregular and running from  $97.4^{\circ}$  F. to  $105.6^{\circ}$  F. On the tenth day there were no rose spots, the Widal test was negative, and the plasmodium malariae was not found. Each day there were chills and profuse clammy perspiration, and the general condition steadily grew worse.

Slight tenderness of the forearm continued, and on the seventeen day indistinct fluctuation was discovered. An incision was made and pus was found dissecting between the flexor muscles. A pure culture of streptococcus was obtained from the pus. On the nineteenth day a small collection of pus was opened over the right scapula. Both wounds did well. The chills and fever, however, continued, and the temperature still ran its irregular course.

The patient became greatly emaciated, but her mental condition remained fair, and her appetite was most of the time excellent. After the second operation her diet was made a most generous one. A slight systolic murmur was heard at the base of the heart for a few days, and then entirely disappeared.

At the end of the fourth week the patient complained of pain in the right shoulder, and there was tenderness on pressure and motion of the joint. During the sixth week she became restless and delirious at night. The pain in the shoulder continued with more or less severity, and at the end of the eighth week the shoulder became slightly swollen. An incision was made into the joint and some pus evacuated. Drainage was instituted, and there was an improvement from that time forward. The temperature became lower, but did not remain normal until the fifteenth week of the disease.

At times there were points of tenderness over the upper and lower extremities and on the chest, and it was puzzling to determine whether or not incisions should be made at these points. A small incision was once made without finding pus. There was no redness and very little swelling at those places where pus was found.

Albumen and casts were present in the urine

during the height of the fever, but disappeared with the other symptoms. The wound healed slowly and motion of the joint was gradually obtained.

OPERATION FOR CATARRHAL APPENDICITIS, FOLLOWED BY ACUTE NEPHRITIS DUE TO COLON BACILLUS, CURED BY NEPHROTOMY.

Dr. T. B. SPENCE reported the case of a young woman, operated upon for catarrhal appendicitis. She did well until the twelfth day, when she complained of severe headache, and her temperature rose slightly. There was also some pain in the right side of the abdomen, and the urinalysis, which had hitherto been negative, now showed a trace of albumen and a few hyaline casts. The wound was perfect, but there was some tenderness on pressure over the right side of the abdomen. On the sixteenth day the leucocyte count was 9,600, and the Widal test negative. The temperature rose gradually until the end of the sixth week, when it reached  $105.8^{\circ}$  F. During this time the patient complained of headache nearly every day; she had frequent attacks of vomiting, and there was more or less pain and tenderness in the right side of the abdomen in the region of the kidney. Repeated examinations showed no increase in the leucocyte count. The urine still contained a trace of albumen and a few casts; at one time pus casts were found.

From the sixth week to the end of the tenth week the temperature was more irregular and septic in character, and at the end of the tenth week there were a number of chills. At that time the right kidney became extremely tender, and was somewhat enlarged. The left kidney seemed normal. The patient was losing ground rapidly, and an exploratory operation upon the right kidney was deemed advisable.

The kidney was delivered through a lumbar incision and found to be enlarged, soft, and light in color. An exploring needle disclosed nothing further, and the organ was then split down through the middle. On section it was edematous, light in color, and showed the markings distinctly. A culture was taken from the cut surface, and a pure culture of colon bacillus afterward reported. The kidney was brought together with mattress sutures of catgut, and a gauze drain was left in the wound.

The temperature immediately came down and reached the normal in four days' time. Persistent vomiting followed the operation, and lasted until noon of the fifth day. This was Thanksgiving Day, and at her request the patient was allowed



a "turkey and cranberry sauce" dinner. From that hour her vomiting and nausea ceased. The headaches became less severe and less frequent, and finally, after many weeks, disappeared. Albumen no longer appeared in the urine, but a few hyaline casts were found at times. There was no discharge of urine on the drain, which was removed on the fourth day, and primary union of the wound was obtained.

#### TYPHOID NECROSIS OF RIBS.

Dr. J. E. JENNINGS reported the case of a man, aged 38, with no history of syphilis or tuberculosis, a strong and healthy man, who suffered from typhoid fever from September to December, 1902, when he was discharged from the Brooklyn Hospital cured. Shortly after his return home he began to suffer with pain and tenderness at a point over the seventh left costochondral junction. In a few days a swelling appeared at this point, and he applied for relief at the hospital on December 30, 1902. A tender red swelling was found at the situation mentioned, the skin movable over it, the swelling itself fixed on the chest wall.

This was incised and a collection of pus found deeply seated and communicating with a focus of carious bone at the junction of the rib and cartilage. This was curetted and packed with zinc oxide gauze. The scrapings from the rib were turned over to the pathologist, who reported that he was able to isolate the typhoid bacillus.

The wound had not healed at the end of a month, when a similar swelling appeared on the other side. This tumor was also at the junction of the seventh rib with its cartilage, and a free opening, with removal of the diseased bone and cartilage, was made. At the same time a second incision was made down to the seat of trouble on the left side, and a piece of rib about two inches long was resected subperiosteally. The appearance of the cartilage was normal. Both wounds were packed from the bottom and allowed to granulate.

Persistent sinuses resulted in both cases. The patient was badly run down, refused further operative measures, and in May obtained out-of-door work in the West. He came back in August with both sinuses still oozing, but with his general condition much better. They were curetted under cocaine, packed with gauze soaked in a saturated alkaline solution of pancreatin, and instilled with a 5-per-cent. solution of carbolic acid in tincture of iodine at intervals for three weeks, at the end of which time both sinuses had closed.

#### Discussion.

Dr. A. T. BRISTOW was interested in this class of cases, because he had one under his charge now, and had seen two besides. They are always chronic and troublesome, particularly when they involve the cartilages, and he had come to the conclusion that there is only one way to treat them, and that is not to make simply an incision and curette, but the better way is to turn back a flap and expose the whole diseased area, and then to allow it to granulate from the bottom and make no attempt at closure of the wound.

The necrotic process of typhoid, when it involves cartilage, is one of the most insidious processes in surgery; it creeps on and on; one thinks he has all the diseased cartilages curetted; he has clean white cartilage at the bottom of the wound, but pretty soon again some of that cartilage begins to break down. The only security in these cases is to have no sinus, but have the entire area exposed to the eye.

#### SALIVARY FISTULA.

Dr. J. E. JENNINGS reported the case of a woman who applied for treatment at the Outdoor Department of the Brooklyn Hospital, July 10, 1903, giving the following history: Four weeks previous she had received a razor cut down the left cheek from the hair line to the jaw. The wound did not enter the oral cavity. This was sutured by an ambulance surgeon and united promptly. The scar remained.

She came in, complaining of a tumor the size of an egg in the left cheek, midway between the prominence of the malar bone and the lower edge of the mandible. It was superficial, fluctuating, and with no signs of acute inflammation about it. It was so superficial that the skin over it appeared to be as thin as tissue paper. She complained that it interfered with mastication, and that her mouth was dry. The fluid contained in the sac was drawn off. It was clear and straw colored. The pathologist reported that it contained salivary corpuscles, and that it digested starch. It lay directly in the line of the scar. The small aspiration opening was sealed with collodion. Four days later the swelling was again its original size, and an operation for the relief of the condition was attempted. A gag was placed in the patient's mouth, and a filiform bougie passed  $1\frac{1}{4}$  inches into the orifice of Stenson's duct. The skin over the swelling was then cocaineized and an incision  $1\frac{1}{2}$  inches long made down upon the cavity. A cyst-like cavity was found at the edge of the masseter muscle, part of

the cavity being below this muscle, but more of it superficial to it. The filiform bougie did not enter the cavity at all, but was about one-half inch above its upper limit in the scar.

The bougie was drawn out from the severed end of the duct, and a slender mouth-toothed forceps made to grasp its end. This was then passed back into the mouth, with the filiform as a traction guide, when the forceps appeared in the mouth. A small portion of a 10 French catheter was caught between its jaws, and it was again drawn along the duct into the wound. With the rubber tube now passing along the duct from the mouth to the wound, the duct was freed from the scar and drawn downward. The parotid end of the duct was found entering the cyst cavity near its upper portion, and a suture of chromic gut was passed through the parotid end of the duct and the masseter muscle beneath it, the oral end and the rubber tube lying in it.

A continuous chromic gut suture was then put in, so as to obliterate the greater part of the cyst cavity and bury the ends of the severed duct and the rubber tube in the deepest part of the wound. The skin was left open, the wound dressed with plain sterile gauze and sealed with collodion.

The wound was dressed on the fourth day and found paved completely with granulation tissue, and healed completely in about two weeks. The tube was in place on the tenth day; on the eighteenth it was looked for again, but was gone. The patient was seen two months after operation, and the patency of the duct was still complete.

SOME CLINICAL VARIATIONS OF SARCOMA, WITH  
REPORT OF A RAPIDLY FATAL CASE.

Dr. B. B. MOSHER read a paper on this subject, for which see this issue, BROOKLYN MEDICAL JOURNAL.

*Discussion.*

Dr. L. S. PILCHER said that it did not seem to him that this case, so rapidly advancing in its course and so strikingly malignant in its character, deserves the characterization which the reporter has made with reference to his relation to it. The operation itself was a part of the diagnostic methods which were being employed, and it would seem that when the diagnostic incision was made that the final diagnosis was easy, and that there was no erroneous diagnosis in the case, for up to this time no diagrams had been made; that the after treatment of the case was everything which could be required, and because the man died it was not a failure in any respect whatever. It was simply one of those experiences

which are unavoidable in surgical work, and certainly not to be classed under the head of a failure in any other respect than all life is failure, because all life ends in the grave. It is simply a case of rapidly advancing, highly malignant sarcoma of the kidney.

No surgeon dealing with diseased kidneys, especially those that are non-inflammatory in nature, can always make a differential diagnosis of the condition until the case is laid bare by operation. We always approach such cases with a feeling that we shall know more about the case after the operation is over than we did before we began.

Dr. A. T. BRISTOW said with reference to the case of sarcoma of the uterus, that it is the universal judgment of surgeons that in cases of sarcoma, if any operation is attempted, the capsule of the sarcoma must not be invaded, but the removal must be complete. Now if one opens a sarcoma for the purpose of getting a specimen for the microscope, it seemed to him that inevitable infection is invited, and if we are going to rely upon exploratory incision in cases like this to make our diagnosis, the diagnosis should be made at once; that is, a section to be at once frozen, and amputation follow within an hour. Halsted says it is absolutely unjustifiable to remove a piece of the tumor in a much less malignant growth—the carcinomata and epitheliomata, and he even goes so far as to say that the same procedure should not be done in suspicious growths of the larynx. In this, however, the speaker was unwilling to follow him, but thought it is a fact that sarcomata should not be interfered with except for complete removal of the infected part.

Dr. L. S. PILCHER, in answer to the query of the last speaker, said that it had always seemed to him that these propositions for making diagnostic punctures and exploratory incisions in malignant tumors ought always to be accompanied with the proviso that if at the time of the exploration evidences of malignancy were found probable, arrangements should have been made to go on and finish the operation required at the time, otherwise the possibilities of diffusion of the growth are very great, so great that otherwise it is an undesirable procedure for the surgeon to resort to. Dr. Mosher reported one case this evening of a sarcoma of the tibia, where an incomplete operation was done, and yet the patient is still living. This is simply one of the exceptions which show the possibilities of an unusual course, which ought not to be accepted as a rule of procedure in general.



## LONG ISLAND MEDICAL SOCIETY.

127th Regular Meeting, March 1st, 1904.

JAMES WATT, M.D., Editor.

## CAN PNEUMONIA BE PREVENTED?

BY ARTHUR C. JACOBSON, M.D.

This question may be answered with a qualified "yes."

The present state of our knowledge concerning the etiology of pneumonia justifies a conservative but none the less optimistic view of our ability to successfully limit the prevalence of this common malady, of special interest at this time both because of the season of the year and because of the unusually high rate of mortality.

The records of the Brooklyn Health Office show that for the eight weeks beginning Dec. 19, 1903, and ending Feb. 13, 1904, there were in this Borough 729 deaths from pneumonia, of which 29, or 3.98%, were of children between five and fifteen years of age.

This augmentation of the pneumonia death rate is attributable to the facts that the prevailing type of the present epidemic is relatively severe and that proportionately more individuals have been affected. I use the term epidemic advisedly, for it is well understood nowadays that in a certain sense pneumonia belongs in the class of epidemic diseases. It may even be pandemic, and some writers speak of it as contagious.

Assuming the present death rate to be 20%, there must have been, during the period referred to a moment ago, about 3,500 cases of the disease in Brooklyn.

The increased mortality can certainly not be charged to the therapeutic account, for here there has been no change except in the direction of advancement, one instance of which is the admitted value, in conventional types of the disease, of the so-called specific or creosote carbonate treatment, now widely practiced. It may also be safely stated that our understanding of the mechanical and toxic conditions present has become more clear and the application of remedial measures thereto more effective. In answer to the attempts that have been made to connect the increased mortality with the conservative methods of treatment now in vogue, we may say that the studies of Townsend and Coolidge, of the Massachusetts General Hospital, have shown conclu-

sively that the rise in death rate took place prior to 1860, when the treatment was largely heroic.

The limitation of pneumonia, if at all feasible, should interest us no less imperatively, for obvious reasons, than the management of its actual bedside phenomena and the study of its pathologic phases.

First in reference to certain states in which the occurrence of pneumonia of one type or another as a complication is a possibility. The prophylaxis of pneumonia must be borne in mind in the management of diabetes, Bright's, certain cardiac conditions, asthenic and senile states, measles, alcoholism, membranous croup in which intubation has been done, septic conditions, severe contusions of the chest, causing the so-called contusion pneumonia, anaesthesia, paralysis of the pharynx, cancer of the larynx or oesophagus, protracted fevers, chronic effusions of the nervous system, and after tracheotomy. An important predisposing cause to be remembered is a previous attack.

The limits of this paper preclude a detailed consideration of the possible means by which we may hope to prevent the occurrence of pneumonia under the foregoing special conditions, but they probably suggest themselves. This paper is mainly concerned with general considerations relating to the prevention of the disease, as ordinarily met with.

Taking up the practical application of the principles of preventive medicine to this disease, I shall read the recent Report of the Advisory Board to the Commissioner of Health on Pneumonia. As is doubtless known to you, this Advisory Board is composed of a number of eminent physicians, among them Professors Janeway and Jacobi. Their very commendable suggestions are as follows:

"The present increase in pneumonia of various types in New York City is justly a source of solicitude to those having the interests of the public health in charge, for it has now been fully established that a certain proportion of cases of pneumonia are communicable, and that by proper care their spread may be prevented.

"The various forms of acute pneumonia which are now prevalent both in adults and children are incited by bacteria. Exposure to cold, overexertion, lack of physical vigor, abuse of alcohol, etc., predispose the individual to pneumonia, but are not its direct cause. The bacteria which are the immediate excitants of pneumonia are usually conveyed in the dust of air contaminated by sputum and by nasal or other discharge, not al-

ways of those who are ill, which upon drying is widely disseminated.

"It is therefore of urgent importance that the regulations of the Health Department for the suppression of the filthy and dangerous practice of spitting upon floors, pavements and other unsuitable places should be vigorously enforced.

"It is furthermore most important that in the cleaning of private houses and all public conveyances and places of assembly the methods adopted should be such as will remove, and not simply stir up the dust, for dust contaminated may incite in susceptible persons some form of acute pneumonia as well as tuberculosis, and the more common colds and catarrhs.

"Feather dusters should be abandoned and moist cloths used for dusting. Whenever practicable, sweeping should be done in the evening, so that the floating dust may completely settle before its removal by moist cloths in the morning. It should be remembered that dust settles on floors as well as on furniture, so that moist mops should be passed over floors, when these are uncarpeted, as part of the morning dusting.

"Whenever floors are uncarpeted and the furnishings of rooms and assembly places are plain, the simple plan of sweeping at night, allowing the dust to settle over night and removing it in the early morning by moist dusting of both the furniture and the floors, will secure to the inmates a large measure of protection against the unnecessary risks of the acquirement of respiratory diseases, at present almost universal.

"The Advisory Board of the Health Department cordially commends the purpose of the Department to secure proper methods of cleaning and dust disposal in the public schools. In the modern conception of effective sanitation, intelligent cleanliness is one of the most useful measures for the suppression of communicable diseases. The Advisory Board would urge upon the Health Department the desirability of instructing in the proper methods of dust disposal all those who have in charge the duty of cleaning public institutions, such as court rooms, police stations, hospitals, dispensaries, churches, theatres, public conveyances, etc., as well as those responsible for factories, stores, offices and the like, and commends the matter to the attention of all householders, to whom, not less than to inmates of public institutions and places of assembly, the risks of dust infection are at this time of special significance."

I should like to ask why the remarks of the Advisory Board in regard to removal of germ-

laden dust should not apply to the cleaning of our streets? Why can not the streets be cleaned at night, when comparatively few citizens are about, thus preventing the inhalation of a goodly portion of the commonest vehicle of morbid matter? This has been done in Boston for years. The Long Island Medical Society could very properly memorialize Dr. Woodbury on this point.

The facts, shown by Netter, that the characteristic diplococcus is present in the buccal secretion of 20% of healthy individuals and that it persists for years in the saliva of persons who have had pneumonia, sufficiently emphasize the importance of anti-spitting legislation in reference to pneumonia no less than to tuberculosis.

Careful disinfection of the pneumonia patient's sputum should be practised. The hygiene of the mouth and throat in those who have had it must be looked after. A house in which several cases have occurred in rapid succession should be thoroughly disinfected by means of formalin.

Speaking generally, exposure to cold, particularly in the form of sudden wetting or chilling, must be avoided. Common sense rules of health must be observed during the pneumonia season, December to May, or for that matter at all seasons, and all debilitating causes must be looked out for, in short, the general principles of hygiene must be made to apply to the problem, even if at best but slightly, through education of the masses in every possible way. The public bulletins of the energetic Chicago Commissioner of Health, Dr. Arthur Reynolds, are admirable examples of what can be accomplished in the way of wide dissemination of educational literature by a powerful and enlightened executive. This official declares that the press of Chicago is his chief sanitary pulpit. He says: "The agency of the press as a sanitary pulpit multiplies the effectiveness of the Department's efforts ten thousand fold." One of his methods is to publish bulletins in several places in a prominent daily.

Here I desire to express my belief that unhealthy conditions of the naso-pharynx, chronic inflammation of the upper respiratory tract, and defects of breathing, all augmented by the overheating and defective ventilation of our dwellings and schoolrooms, in fact of nearly all our public and private buildings, must operate in the production of increased susceptibility to pulmonary disease of one sort or another, including pneumonia. Durgin, of Boston, has proved an excessive prevalence of respiratory diseases in school children, finding that of 9,188 examined, 5,689 had acute



or chronic diseases thus located. In another study 3,934 out of 8,964 were found to be suffering from respiratory diseases. During 1900 the school inspectors of Boston found 2,609 respiratory diseases. In this connection you will recall that the records of the Borough Health Office show that 29 children of school age have furnished their proportion of the deaths during our present epidemic, for the short period covered by the statistics quoted.

The Bulletin of the Chicago Health Department, for the week ending January 30, says: "Pneumonia is a disease of modern architecture—of the custom, steadily growing during the past fifteen or twenty years, of covering every available square foot of land with the building and using every available square inch within its walls for little cubby-holes and cubicles in which human beings are to work and live and sleep. Air famine is the most potent cause of pneumonia, as it is of tuberculosis. The high priest of modern hygiene, Edmund Parkes, more than a generation ago, formulated a table demonstrating that 3,000 cubic feet of air per hour is necessary for healthy life indoors, and during the latter third of the generation our architects have been steadily getting farther and farther away from this standard, and the pneumonia incidence and mortality have been as steadily increasing."

A word as to the production of immunity. That immunity can be produced has been proven perfectly feasible in the lower animals through the artificial production of an antipneumotoxin, which, while it does not destroy the bacteria nor lessen their power to produce a toxalbumin, does neutralize the toxic substances as they are produced. Thus far, however, no perfectly satisfactory serum has been elaborated for clinical use, but we can reasonably hope for such a beneficent event.

Now as to the question, Can pneumonia be aborted or cut short?

It appears to be the prevailing, but not universal belief, of the profession, that the so-called jugulation of pneumonia is not possible. Personally, I do not believe that such a profound therapeutic result can be obtained, admitting its possibility, without prohibitive physical cost; I mean, of course, with our present therapeutic resources. A serum is the most rational thing to which we can look forward.

Spontaneous abortion on the third, fourth or fifth day occurs not infrequently, and this fact must be reckoned with by the enthusiasts who fancy they see crises induced by radical and al-

most invariably dangerous methods based upon the erroneous conception that the physician is the master, rather than the servant, of nature.

We have all read reports in the cheaper, commercially directed journals, exploiting some proprietary coal-tar product as an abortifacient of pneumonia. It is hard to characterize them without resort to unparliamentary language.

An eminent pediatricist of Manhattan describes, in the Reference Hand-Book of the Medical Sciences, his method of treating incipient pneumonia in children  $1\frac{1}{2}$  to 2 years of age. He employs calomel purgation, applies mustard paste to the chest, and gives 1-60 of a grain of strychnia every 4 hours. He claims that the results in occasional instances are very gratifying indeed, limiting the duration of the disease. I make no comments on this method.

Attempts at abortive treatment are probably delusive and ill-advised. There are reasonable evidences of the course of the disease being somewhat modified by creosote carbonate, which is a rational enough treatment from a theoretic standpoint, and has the merit of doing no harm if it does no good. This, however, is not abortive treatment, but represents a safe, conservative and rational attempt at pulmonary therapeutics, the only kind that should be countenanced by the profession.

Anders seems to think that the abortion of pneumonia is possible but admits personal failure. Beverley Robinson, of Manhattan, believes that early inhalations of antiseptics would prevent, to use his own word (he probably means abort), pneumonia. He argues that, since the researches of Welch show that the specific organism is but little tenacious of life and that its loss of virulence is frequent and apt to occur rapidly, that we have here a very substantial reason for his theory.

Bleeding has its advocates in selected cases, but I am not aware that anyone nowadays claims anything more for it than relief of right heart symptoms. *Veratrum viride* and tartar emetic have been claimed to abort or at least limit the disease. Petresco gives two drachms of powdered digitalis leaves in 24 hours, a truly colossal dose. His idea is to re-establish the cardio-pulmonary circulation by passing through the lung tissue an adequate proportion of leucocytes. This method has failed in Anders hands, but Petresco reports 1,192 cases, with a mortality of less than 3%.

The so-called antiseptic methods are the administration of carbolic acid, M. I q. 4 hrs., thy-

mol, grs. III q. 4 hrs., or bichloride of mercury, gr. 1-100 q. 4 hrs.

Osler states dogmatically that pneumonia can neither be aborted nor cut short by any known means at our command.

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### PNEUMONIA.

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#### INFANTILE AND ADULT TYPES; DO THEY DIFFER?

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BY C. LE GRAND KERR, M.D.

A prime requisite in the management of any disease is an intelligent understanding of the pathological processes present, and those liable to follow. This statement would cover almost entirely the case of the adult, representing, as he does, a fixed and definite entity, unchangeable in mind and body, from day to day, as far as human appreciation of the change is concerned.

Not so with the infant. Here we find no such fixed standard, but on the contrary, a rapidly changing being; an organic flux; unstable in the endeavor to obtain a permanent economy, that is sufficient for the work of self-preservation. The infant bears to the adult a relation of potentiality; nothing more. He is not a man in miniature, but an entirely distinct being. To intelligently manage disease in the infant, it is absolutely essential to know more than the pathological processes; we must know the child. While this is true in the main, it is more so, when we particularize, and so we find that the infantile type of pneumonia differs from the adult type, generally, pathologically and clinically.

When we bear in mind that the respiration in the infant is diaphragmatic (not becoming costal until the seventh year of life), and that the respiration is irregular during infancy, except during the time that the infant is sleeping, when it may become rythmical, we find some of the reasons for a general difference, when a disease attacking the lungs is present.

*Etiology.*—The acute pneumonia of infancy is in the vast majority of instances, a broncho-pneumonia, and not the croupous type as usually seen in the adult. Explanation of this lies in the anatomy of the parts. In infants, the delicate tissues constituting the alveoli of the lung are not perfectly developed. There is a marked vascularity.

This condition affords less immunity against infection by micro-organisms, than the more matured tissues of the adult lung. It also helps

to account for the fact that the infantile type does not depend so largely upon atmospheric conditions for its prevalence as the adult.

The adult type is, in the main, a disease of the winter months; the infantile holds to no such limits, but is common the whole year round, and secondary to a number of other conditions to which the adult is not prone.

The bacteriology of the two types is the same, with this exception: that the streptococci and staphylococci are found in much larger numbers and more often in the infantile type.

*Pathology.*—Some of the anatomical features which influence the pathology have already been mentioned.

Infantile broncho-pneumonia is a lesion, rather than a disease.

While the term may not be ideal, it gives the prominence where it should be placed—upon the bronchial element. It includes several diseases, giving us a mixed infection, with two or more different processes present in the lung at the same time.

In the adult, the process is circumscribed, and the products of the inflammation are fibrin.

The infantile type is very diffuse, and the products cellular.

It does not follow any well defined or regular order of changes, as we see in lobar pneumonia.

While there are cases which seem to pursue fairly well defined stages on congestion, hepatization and resolution, the disease may be arrested at any stage, and recovery take place, or on the other hand, death may occur at any stage, and an autopsy show all of the processes present in the lung.

It is very uncommon (almost rare) to find but one lung affected.

*Clinically.*—Adult pneumonia is a single disease, self-limited, following a clearly defined course, divisible into stages, attacking with apparently equal virulence the weak and the strong.

The infantile type shows a marked preference for those who are weak, or debilitated, and has no absolutely typical course of symptoms, duration, or way of terminating. The whole course of the disease impresses one with the idea of an illness which is markedly influenced by environment and previous physical condition.

Too much stress cannot be laid upon the fact, that it may exist without the physical signs of consolidation being demonstrable at any time during the course of the disease.

The breathing is not abdominal, but thoracic, there is no effort made to rest the parts, and the



pause in respiration comes not after expiration, but before it.

There is no expectoration. The temperature is unsteady, usually high, but remittent, the daily fluctuations being often four or five degrees.

Dyspnoea is not only apparent as in the adult type, but real.

The termination, if unfavorable, is not, as in the adult, from cardiac embarrassment, but from respiratory failure.

Two other systems are very apt to be involved when broncho-pneumonia attacks an infant; the nervous and more frequently, the digestive.

The frequency of digestive disturbances, associated with terminating broncho-pneumonias in infants, and their marked influence upon the outcome of the disease, leads us to emphasize the great importance of this feature.

Unquestionably many cases having a fatal termination would have a different ending if in the beginning the tendency to intestinal involvement had not been lost sight of. This naturally suggests the question of therapeutics, as affecting the digestive system; but that is not within the scope of this paper.

With the varying etiological factors, the peculiar anatomical structure of the parts, the essentially diverse and varied but associated pathological processes, and that particular, anomalous character of the whole constitution of the infant giving us a clinical picture, different in its setting and elaboration from the adult type, why should we persist in an endeavor to diagnose and treat the disease by the same methods, or with only a corresponding knowledge of the conditions to be met, as we do in the adult? A reiteration of one of our first statements will not be out of place here: "We need to know the child."

#### *Discussion.*

Dr. CORNWALL: I am very glad to have had the opportunity to listen to these interesting papers, and the subject is one in which we ought to manifest a great interest on account of the high mortality. Last year in New York there were 10,000 deaths in 70,000 cases. I think a great number of pneumonia could be prevented by proper disinfection. In the treatment of pneumonia I think small frequently repeated doses of aconite of great value in the early stages, and in the latter stages, where heart stimulants are required, I use strychnine and digitalis.

Dr. HOLDEN: I think the condition of our streets an outrage, and the filth and dust found therein is a cause of a great many diseases,

among which is pneumonia. On trolley cars, when the door is open, a back draught is created, and the car becomes filled with dust almost to suffocation. If cars were vestibuled as they are in Philadelphia and other cities, this would be prevented.

Dr. TREADWELL: I have seen two case of so-called bilious pneumonia this winter, in which jaundice preceded the pulmonary signs by two or three days. The symptoms began with high fever jaundice and the ordinary signs of grippe.

Dr. HODGES: I had a case this winter, similar to Dr. Treadwell's, in which I made a diagnosis of gastro-duod. catarrh; but in three days the physical signs had appeared in the chest, and I was able to make a diagnosis of bilious pneumonia.

Dr. C. R. HYDE: I have had several cases of contagious diseases lately and have found great difficulty in obtaining from the Board of Health a proper disinfection. They told me that it was impossible to disinfect with formalin, as they did not have any, and that they were using sulphur, and not burning it in the presence of moisture.

Dr. WESTBROOK: I had occasion to call on the Board of Health for a disinfection, and it took me four weeks before I could get formalin, and only then by writing to the head of the department in New York, where I was treated with great courtesy, and my disinfection was properly completed the following day.

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#### REPORT OF TWO CASES OF IRITIS WITH COMPARATIVE REMARKS.

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BY P. CHALMERS JAMESON, M.D.

Surgeon Brooklyn Eye and Ear Hospital. Visiting Ophthalmologist, Brooklyn Hospital.

Mr. B., a man of strong physique, forty years of age, consulted me as to his left eye last spring. Three days prior to visit, he had no absolute pain, but thought he had a foreign body in eye. There was much lacrymation. The lids did not stick together. On the third day eye became very painful, and vision was somewhat blurred. He then sought medical advice. Inspection: In comparison with right eye the markings of iris were indistinct, the contents of anterior chamber muddy. The pupil was markedly contracted, and the reaction to light sluggish. There was marked circum-corneal injection. On palpation the tension was normal, but elicited pain above and over equator of eye-ball. On the use of a 4-grain

solution of atropine, the pupil dilated slowly and irregularly. Diagnosis: Plastic iritis.

CASE II.—Miss C., a young lady, seventeen years of age. Five weeks ago the eye became uncomfortable. There was slight lachrymation, and slight but hardly perceptible blurring of vision; beyond that little or no subjective symptoms. Patient, however, consulted Dr. Knapp of New York, and as the doctor desired that she should have absolute rest for some ten days, he kindly referred her to me. Inspection showed very little externally, other than the faintest possible circum-corneal blush of hyperaemia. The tension was normal. There was no pain and the markings of the iris were plainly visible. The iris was slightly discolored. Pupil normal in size, freely movable, and the contents of anterior chamber were clear. On the use of atropia, pupil responded promptly and was evenly dilated. Ophthalmoscope revealed the picture of decemittic spots and slightly hyperaemia backgrounds. Diagnosis: Serous iritis.



SEROUS IRITIS OR  
DESCMETITIS.

The spots or deposits are conglomerations of cells containing pigment granules, derived from the uveas and deposited on posterior surface of cornea or Descemet's membrane.



POSTERIOR SYNECHIA.

The pupil has been dilated by instillation of atropine.

The dilatation however, is unequal, because the upper part of the pupillary margin is fixed by adhesions of the anterior capsule of the lens.

At A, there is a slender synechia.

At B, a broad adhesion.

At C, a filament of iris runs straight upward.

I have purposely described these two cases together, being two in a series of many to discuss for a moment; two diseases both affections of the iris and yet markedly dissimilar in clinical history and appearances. The one, plastic iritis, can hardly be mistaken when at the height of its attack, although in the early stages of its development, the patient frequently believes that the eye is simply the subject of cold, and does not seek medical advice until that much-to-be-regretted condition of posterior synechia, or until the posterior epithelium of the iris had agglutinated itself to the anterior capsule of the lens. In its insidiousness, therefore, lurks much danger. The circum-corneal injection, obliteration of landmarks of iris, sluggish reaction and irregular pupil on the use of atropine, all make the diagnosis easy of recognition. The other condition, serous iritis, is not so easy of recognition,

and may be overlooked for many weeks and months, so slow is its development and progress. If the prominent pathological feature in the one is plastic exudate, the other is essentially serous in nature. The one, plastic, much more inflammatory in its expression than serous type, and in the early stage possibly much more capable of doing permanent harm to the eye by reason of the agglutination of the tissues to one another. The serous type, however, if neglected, is capable of much damage, even to the extent of blindness. We ordinarily regard plastic iritis as one in which the iris itself is the only structure involved, but we must remember that while this is largely the fact, yet by anatomical continuity the adjoining structures may be markedly implicated. Serous iritis, on the other hand, is generally a much deeper situated affection. General recognition of this fact has led to the name of uveitis serosa, as indicating the involvement of the entire uveal tract. Dr. Knies, in 1879, reported an autopsy of a case in which he found the whole uveal tract involved, as well as the sheath of the optic nerve up to the chiasm. The disease, therefore, must be generalized as much more than iritis, the iris only being the structure more apparently involved, being situated more anteriorly. As to the treatment, in the first case the diagnosis having been made and a history of syphilis obtained, the patient was placed on biniodide of mercury, and increasing doses of potassium iodide. A 4-grain solution of atropia was instilled into the eye, and later when dilation had been accomplished, a 2-grain solution was substituted. Hot fomentations over the closed lid were applied until the acute inflammatory symptoms had subsided. In the first week, and during the most acute expression and painful portion of the disease, the patient was confined to his room; later he was permitted to perform his ordinary duties to a moderate extent, which he accomplished with the use of smoked glasses to allay the photophobia. The younger patient, being somewhat run down and overworked, was advised to remain in bed sixteen hours out of the twenty-four, was well nourished, and small doses of biniodide of mercury and iodide of potassium, together with cod liver oil and strychniae. Atropine was used in no stage of the disease, as the pupil was freely movable. The decemittic spots gradually subsided and vision correspondingly improved, but six weeks after the first intimation of the trouble, the eye had not entirely returned to its normal condition. In both types of the disease local and



constitutional treatment are actively indicated, rheumatism and syphilis being the active causative agents. The danger in plastic iritis lies in the withholding of the atropine in the early stages, so that the parts in continuity become matted together, and their function either lost or impaired, or that the inflammatory exudate may be so active in its expression that it may damage the sensitive tissues beyond reparation before such constitutional or local treatment can be brought to bear upon the condition. That of serous iritis is that the subjective symptoms are so trivial in its incipency, that by patient's neglect the diagnosis may be overlooked and lasting damage brought about before the necessary constitutional treatment can be administered. In comparing the two diseases, both of which are dangerous to vision, the most striking thing to the writer's mind is the violent inflammatory expression of the one (plastic), necessitating the immediate and continuous use of atropine to prevent that most disastrous condition of permanent posterior synechiæ, and the marked and insidious, almost non-inflammatory expression of the other, necessitating prompt recognition and such constitutional treatment as may prevent permanent obscuration of vision by damage to the whole uveal tract.

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## THE BROOKLYN GYNECOLOGICAL SOCIETY.

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STATED MEETING, MARCH 4, 1904.

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The President, W. E. BUTLER, M.D., in the Chair.

HENRY C. KEENAN, M. D., Editor.

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### REPORT OF CASE: DOUBLE PYOSALPINX.

Dr. O. A. GORDON: There is no special interest in these specimens except that they bear on the subject of the paper to-night. They are two pus tubes and ovary. They were removed from a young woman who has had five or six acute attacks of pelvic inflammation, lasting only a few hours or a day, as she described it. One week ago she was suddenly seized with acute abdominal pain, more marked on the right side, with vomiting, rapid pulse, and rise of temperature. Her attending physician's first diagnosis was appendicitis.

I was asked to see her, and while there was

tenderness on the right side, bimanual examination revealed a fixed uterus and a tense vaginal vault, and great tenderness. The diagnosis was changed to probable pus tubes. She was sent to St. Mary's Hospital, and I removed these tubes yesterday morning. The temperature was running from 101° to 104°. The tubes were very friable and both ruptured in separating them from the adherent intestines, but by the use of large laparotomy pads and gauze wipes, I was able to protect the peritoneal cavity from much soiling. She is doing fairly well, and promises now to make a good recovery.

Dr. C. JEWETT: I would like to ask if the infection was gonorrheal?

Dr. O. A. GORDON: I was not able to get a gonorrheal history. There was no bacteriological examination.

Dr. J. O. POLAK: This is a question in which I am very much interested:—The advisability of abdominal section in acute pus cases and in patients running temperatures. The doctor states that in this case he found the tubes to be extremely friable—one tube broke off in the dissection—and he had difficulty in protecting the peritoneal cavity. These are the points, I think, that are made in defense of vaginal section and drainage in acute pus cases. Had this case had a cul-de-sac incision and drainage, the convalescence would have been prompt, and a subsequent operation, if one were necessary, would have been much easier than the one the doctor has now done. The probability of rupturing the tubes during enucleation, the danger of soiling the peritoneum, the tendency to hemorrhage by the cutting through of ligatures, are points to be considered when operating during the acute stage. For these reasons, the vaginal route should be selected in acute cases, if not as a palliative measure pure and simple, then as a life saving measure, and remove the tubes subsequently. I think it is true conservatism to give the patient the best opportunity for prompt recovery from her sepsis.

The history of repeated attacks and the fact that there were two pus tubes, rather argue a gonorrheal than a septic origin.

I am interested just at present as to whether we can find evidences of urethral or Bartholinian involvement accompanying these pus cases. These signs go far toward the diagnosis of gonorrheal infection, as in many old cases the gonococcus is entirely absent in the contained pus, from destruction by its own toxins or by length of time or pressure. Consequently in many tubes

the pus is sterile, yet the evidences of the gonococcus may be present in the urethra or in Bartholin's glands, or in Skene's glands in the floor of the urethra.

Dr. L. G. LANGSTAFF: Was the case drained?

Dr. O. A. GORDON: Yes, by abdomen.

Dr. C. JEWETT: It is a rule to attack acute suppuration in the pelvis from below owing to the very grave danger there is usually of infecting the peritoneum in the abdominal operation. Yet, if the pus is old gonococcic pus, there is practically no danger from soiling the peritoneum. In acute gonorrheal infection, the danger must be small.

An acute gonorrheal process, Bumm says, entails no direct danger to life. Krönig believes that gonorrheal pus tubes seldom require operation, even though of considerable size.

Dr. S. J. McNAMARA: How long was it from the time of the primary infection to the date of operation?

Dr. O. A. GORDON: I think the history of these attacks goes back some four or five years. This one began about a week ago. I sent her into the hospital to watch her, hoping that it would subside, but every hour she grew sicker. She began having chills with high temperature, and heart growing weaker, and it seemed to me that this attack was not going to subside so that an interval operation could be done.

Operation from below was considered, and as it was impossible to feel the tubes through the vagina, it was deemed safer to go in from above, where I could see what I was doing.

Dr. J. O. POLAK: I think the gentlemen mistake the premises. I am not making the claim that these tubes should be removed by vagina. I simply say down hill drainage is better than up hill drainage. I think an abscess cavity opened and drained by a procedure which takes two to three minutes is better than abdominal section, which takes one-half to one hour. The patient gets less ether, sustains less shock.

Again all of us know how difficult it is to get down to free the adhesions in the cul-de-sac. This is done much easier from below. Our line of cleavage is better, and we practically isolate the pelvis with our gauze, and in that way confine the infection to the pelvic peritoneum instead of trailing this pus through the abdomen during the acute stage. A woman with a temperature of  $103^{\circ}$  or  $104^{\circ}$ , whether her primary infection occurred five years before or whether it occurred a week before, is in an acute stage. That was my point entirely. It is not a criticism

at all of Dr. Gordon's procedure, but simply to make my position clear in regard to this matter.

Dr. C. JEWETT: Dr. Polak, as I understand, works through the cul-de-sac. I would like to ask when he attacks the tubes why he does not do an anterior colpotomy?

Dr. J. O. POLAK: Dr. Jewett is speaking of removing the tubes. I would not take pus tubes out through an anterior colpotomy, because I would defeat the very points I want to gain—localization and good drainage.

Dr. H. C. KEENAN: I should like to simply ask the question, when would you consider a case of gonorrheal salpingitis acute enough to operate at all? Do not all these cases, or most of these cases, as a rule, remain localized, and do they not, as a rule, clear up under rest in bed and proper treatment, and go on to the stage when they are less acute and can be operated on?

Dr. W. B. CHASE: It seems to me something more is involved in the question that has been raised than Dr. Polak in his primary remarks alluded to. Sometimes we may be quite certain we have an abscess, but we may not be quite so certain we can locate it. An acute pelvic abscess, whether tubal or intra- or extra-peritoneal, it seems to me that in these acute cases, be they of old or recent origin, if there is a point of tenderness sufficient to locate the trouble, and the patient's condition is already grave, that there are very strong reasons why they should be drained from below.

I do not think because you drain from below that it involves the proposition that you are going to remove the diseased tube. You may or may not. As Dr. Polak says, I think drainage down hill has a distinct advantage over drainage up hill.

A good many cases of acute abscesses, whether in the tubes or pelvic structures, have been lost by ill-advised operations from above; whereas, if the incision was made in the cul-de-sac and drained, the surgeon would have an opportunity to see whether he would do a secondary operation from above or below. In cases where there is systemic infection, a good deal of care should be exercised. You can do a good deal better surgery in operating from above than below, because you can see what you are doing, but it is not necessary to see what you are doing when you have a big pelvic abscess.

Dr. L. GRANT BALDWIN: I should like to say a word in regard to these specimens. I should certainly consider this a chronic case of tubal infection. From my standpoint, any tube that



is occluded must be a chronic case, because you cannot get them occluded until you have at least one subsiding attack of local peritonitis. You cannot distend a tube until you close both ends. You can have an acute suppurative salpingitis with the fibriated end open, but that is not a cystic salpinx. In that case you have an acute gonorrhœa of the tube, and it is a question whether these cases subside or not. I have operated on several of them, and I have always felt safer to take the tubes out, the diagnosis being made by the pain and temperature, but in a case as detailed, I am frank to say that I do not see how there is any possibility of their subsiding, and how they could be considered anything but a chronic case.

As to taking these tubes out through the vagina, a man would certainly have to have more skill than I possess to be warranted in doing so.

As to the question of less shock and all that sort of thing, in connection with vaginal operations, I believe if you do the same surgery through the vagina, you will get just as much shock as through the abdomen. As far as I know there is no exception. There is no more shock in doing a hysterectomy for a moderate-sized fibroid through the abdomen than doing a hysterectomy for the same fibroid through the vagina, and they convalesce and leave the hospital just as quickly.

Pus will not always run down hill, either, through a closed vagina.

#### REPORT OF CASE: CONCEALED ANTEPARTAL HEMORRHAGE IN PARTIAL PLACENTA PRÆVIA.

Dr. C. JEWETT: Patient 41 years of age, a primipara, at the beginning of the ninth month, was attacked with bronchitis and severe cough. At the end of about the first week of the ninth month she was seized with uterine pain and was supposed to be in labor. When I saw her the pain, I found, was continuous, and the uterus very tense. Labor had not begun, the os internum not being effaced. There was no external bleeding. The pain was intense, the pulse 140, the patient pallid and evidently very ill. The condition was plainly due to retroplacental hemorrhage. The only hope was in prompt delivery. I began the dilatation of the cervix with a Godell dilator, continued it with a Voorhees bag for a time, and completed it with the fingers. The child had been dead for two or three days, as was shown by the fact that the skin broke on touch. The placental attachment, which was posterior, extended to the os internum. Two firm blood

clots, each fully as large as the closed fist, and a quantity of old fluid blood, came away with the placenta. Examination of the placenta showed that one of the clots had been situated about two inches above the lower margin of the placenta, the other one two or three inches above it. No blood escaped through the cervix till artificial dilatation was begun. Then only a little, and fresh blood came away. The woman died from the effects of the antepartal hemorrhage and superadded shock. Strychnin and digitalis were given, hypodermoclysis and enteroclysis were freely used but to no purpose.

The case is of interest as going to show what I believe to be true of many cases of so-called accidental hemorrhage. Most of them are placenta prævias.

Dr. J. C. MACEVITT: Were there any diagnostic symptoms of hemorrhage? Did the hemorrhage take place through the palpation, or was there evidence of loss of blood through the action of the pulse?

Dr. JEWETT: The pulse had climbed up steadily, the patient was exceedingly pale and exhausted. These were the signs of hemorrhage. Palpation revealed extreme tension of the uterus. No nodes were felt, as the placental seat was posterior. There was no boggyiness such as is frequently described in text-books. I had palpated the abdomen about a week before, and everything was apparently normal.

I would be very glad to have the treatment criticized. Would the woman have done better had I delivered by Cæsarean section?

Dr. G. McNAUGHTON: How long was the Doctor in dilating the cervix?

Dr. JEWETT: The manual dilatation did not occupy more than twenty minutes probably.

Dr. C. JEWETT: It would be difficult to estimate the quantity of blood in the uterus. There was no postpartal hemorrhage. Undoubtedly the pain was an important factor in the shock. It was not relieved appreciably by a quarter-grain of morphine given hypodermically.

Dr. J. O. POLAK: I should like to ask Dr. Jewett if it is not so, that these cases of hæmatosalpinx almost invariably show some torsion of the tube. I mean the non-ectopic ones.

Dr. C. JEWETT: Very possibly. I could not say from my own observation. Non-ectopic cases I have assumed are generally of inflammatory origin. Usually the blood is not clotted, while in hæmatosalpinx from tubal pregnancy it is always clotted.

## REPORT OF CASE: DOUBLE ECTOPIC GESTATION—INTRAPERITONEAL RUPTURE.

Dr. J. O. POLAK: Do not think that I only report fatal cases, but the following is one of unusual interest:

The patient, 36 years of age, mother of two children, the last one three years ago. Had her last menstruation on January 11, 1904. In February she did not come around. She had no previous history of intercurrent tubal disease, and had been practically well since the birth of her child three years previous, but skipped her February menstruation.

On March 1 the patient was seized with sudden and severe pain in the left side, not severe enough to cause her to faint or collapse, but acute enough to cause her to lie down for most of the day. She did not call a physician. Toward afternoon she was suddenly seized with severe pain in her right side, which was excruciating. This attack was attended with collapse, and she became very pallid. A physician was called, and when he arrived he found her pulseless. I saw her with him about two hours afterward. There were evidences of internal hemorrhage. There was slight dulness in the right flank, and a general resistance over the entire abdomen, yet none of that particular rigidity that we get in inflammatory conditions. The pulse at that time, under the doctor's wise administration of opium, had dropped to about 120, and seemed to be fair in character. The second sound of the heart was indistinct.

By vaginal examination the cervix was found to be torn, with the uterus pushed forward a little more toward the pubis than normal. There was nothing by vaginal examination giving evidence of an inflammatory condition, or evidence that the cul-de-sac was filled with blood.

The surroundings were such that an operation at the house was out of the question. It was a dirty tenement, and we moved her to the hospital. In transit her pulse went from 120 to 160. She was operated on, and we found the unique condition of a double ruptured ectopic pregnancy. The pregnancy on the left side was interstitial, with intraperitoneal rupture, and the one on the right side was in the free portion of the tube and had also ruptured into the abdomen. The patient was infused on the table, and the tubes removed. She came off the table with a pulse of 170, and I thought that her prognosis was fair. The pulse came down somewhat during the afternoon, but the following morning, while it slowed in frequency, it became very much weaker. The pa-

tient complained of no pain whatsoever, and passed away in a condition of continued shock.

I report this case because I believe it to be unique.

Dr. L. G. BALDWIN: One question I would like to ask Dr. Polak is regarding the character of the heart sounds—whether the second sound of the heart was lost at the time of operation or not? That seems to be a valuable point in the prognosis. So far as I can remember, in any case where the sounds of the heart are failing and the second sound is lost, I have never known a case to recover.

Dr. J. O. POLAK: There were murmurs at all the valves apparently from anæmia, and the second sound was not heard when I saw her.

## PAPER: THE COMING TREATMENT OF SALPINGITIS.

BY DR. J. S. McNAMARA.

*Discussion.*

Dr. C. JEWETT: The subject has been pretty well covered in the discussion of cases. That pus tubes may sometimes be reclaimed by drainage I can testify from ample experience. After a considerable proportion of lower route operations, the mucosa of the tube has apparently regenerated, tubes and uterus have regained their mobility, a complete symptomatic and in some cases a satisfactory anatomic cure has resulted.

On the other hand there are many failures or partial failures after drainage.

The success of the treatment discussed by Dr. McNamara must depend on the character of the case—the kind of infection. Old gonococcic pus may be washed out with a prospect of excellent results. With tubercular pus this certainly would not be possible, nor could we look for any great success in so treating streptococcic infection of the tubes.

The good results have no doubt been had in old gonorrheal pus tubes. Yet the study of gonorrheal pyosalpinx in some of the German clinics, as I have already said, has led to the belief that surgical measures are rarely called for.

Dr. G. McNAUGHTON: It seems to me that acute cases of gonorrheal salpingitis accompanied by high temperature, where the tumor is accessible from below, should be approached from below, even if a second operation is required a year or six weeks, or five years later. By doing an operation through the peritoneum from above, at that time, you increase very greatly the risk, because the material at that time is more virulent. If you can allow that to escape and diminish tension, discomfort and pain that always accompany



it, it seems to me that is a better plan. In operating on these cases in that way—and I have operated on a good many of them, some requiring a second operation—I have always explained to the patients, if they were intelligent enough to understand, that a subsequent operation might be necessary.

Occasionally these tubes are situated so high it is impossible to reach them from below, and therefore it would be futile to attempt it. This can be determined, I think, before operation. In order to make the operation a little safer, where there is a considerable accumulation of pus of any sort in the tubes, and a good deal of tension, we know in getting these out it requires a great deal of skill to remove them without rupture. I aspirate these cases when it is possible and get rid of the fluid, and the remaining flaccid wall is more easily handled, and there is much less risk of infecting the peritoneum.

I agree entirely in the position taken by Dr. McNamara in his idea of these cases. I should, if possible, in acute cases, never go through the peritoneum. I think all of us have seen cases which have gone through that process and have come out in good condition. We have probably all seen cases where they have been opened through the vagina and drained in that way, in patients who had subsequently become pregnant, showing that you do get physiologically, as well as anatomically, satisfactory results.

Dr. L. G. BALDWIN: Certainly to save everything possible of a woman's pelvic organs will be agreed to by us all. The question that has been hard for me to decide is what cases have been suitable for vaginal drainage with the hope of either anatomical or clinical success.

While I believe in most cases where there is a well-defined abscess of the tube, such as Dr. Gordon exhibited here to-night, I believe we are more capable of saving a portion of the tube or a portion of the ovary, and of getting our patient well from both standpoints from an operation from above than I do from an operation below. It seems to me that the matter of our ability to examine and treat the appendix at the time is enough to make us in many instances select the abdominal route over the vaginal route. Certainly in a considerable percentage of these cases, especially of right-sided salpingitis, the appendix is involved. It is adherent in many instances to the tube, and if not adherent it is very often inflamed from being in bad company.

I have not the slightest doubt but that there are many cases of acute salpingitis that get well,

and I believe that opening the cul-de-sac and draining does good, but where you have a distended tube with pus, my feeling is, and I have seen no results that warrant me in changing that opinion, that these tubes, at least the part distended with pus, are better removed from every standpoint.

I think you cannot have a distended tube and call it acute. I think the minute you get a distended tube, it has passed the acute stage. Of course you can have a peri-tubo-ovarian inflammation from leakage of pus, which puts the patient in an acute condition and is more grave than an original attack. An original attack of gonorrheal salpingitis, in many cases I have seen, is not very grave. Where you have a distended tube and leakage of pus, the condition is more serious.

Dr. C. JEWETT: I would like to ask Dr. Baldwin did I understand him that he would do by abdominal section conservative work on a tube which was the seat of acute suppuration, cutting off the tube and saving the proximal end?

Dr. L. G. BALDWIN: Yes; I would save the proximal end. I have done so a number of times in acute cases.

Dr. J. C. MACEVITT: The case is one of exceedingly great interest, evidenced by the diverse views which have been broached here this evening. Most of the gentlemen who have spoken are in accord regarding the acute cases. I feel that we are justified absolutely in attacking the collection of pus through the vagina in either the so-called acute or subacute cases. While I am in favor of the abdominal route in all cases of prosalpinx of a chronic character, I would hesitate to attack the tubes through the abdominal route where the patient exhibited a condition of acute inflammation. By that I mean to say in a given case of collection of pus in the tubes, with a temperature of  $104^{\circ}$  or  $105^{\circ}$ , with a rapid pulse and localized peritonitis and a generally poor condition. In opening through the cul-de-sac we do not enter the free abdominal cavity, and hence avoid the prospect of a septic peritonitis.

A matter for due consideration in the selection of the vaginal route is the length of time that we submit our patients to recovery. As a rule it will require from three to four weeks, whereas through the abdominal route, our patients are able to be up anywhere from the tenth to the fifteenth day. It is at times difficult to discriminate in the election of method.

I believe this: That in chronic cases, surrounded by a great deal of inflammatory exudate, that

it is impossible to do a complete operation through the vagina. One of the most difficult points in an operation of this kind, where you have a great deal of inflammatory exudative material, is the hemorrhage. Time and time again I have found that a most annoying condition. In an organized exudate, with an adventitious circulation, and I know of two or three cases where death has resulted from internal hemorrhage due to oozing, any other than the abdominal method would be bad surgery. A case was brought to my notice within a short time, where the surgeon in charge had removed both tubes and found this condition of interminable oozing. He exercised skill in attempting to control it, but permitted his patient to be sent back to bed with a slight oozing, believing the packing he had introduced into the cavity would cause its cessation. Unfortunately it did not cease, and a number of hours afterward he was called upon to do a secondary operation for this hemorrhage, and in order to control it, he was compelled to take up large masses of tissue between the blades of hysterectomy forceps.

One strange thing to me in these cases of pyosalpinx is that we see so few cases in women who have passed the menopause. Now there must be a great many women who have given evidences of pelvic inflammation who have had pus tubes, and after the menopause appear healthy with no physical evidences of this condition existing. It is only fair to assume that abortion from some of the natural processes takes place. For that reason we are oftentimes justified in submitting our patients to medical treatment, and it is a fact beyond dispute that in acute cases of pelvic infection that medicinal treatment is alone requisite, if the patient is willing to submit to it. Local treatment will oftentimes assist us in making a diagnosis. For instance, where an acute infection is grafted on a chronic, its absorption through medicinal application will expose the older pathological process.

Dr. J. O. POLAK: I want to commend the points brought out in Dr. McNamara's paper. I think he has been moderate in his claims, and yet he shows by his statistics, which all of us can endorse, that he is not claiming too much.

The proper treatment of salpingitis is one of very great importance, and I think that Dr. MacEvitt has called attention to one very valuable point, i. e., that a large number of these gonorrheal cases and a large number of septic cases of salpingitis, are self limited, and there is unquestionably a regeneration of the tube, particularly is

this so in septic cases, and even where there has been very considerable septic peritonitis, as has been proven by secondary operations on these cases or subsequent operations, and also by subsequent pregnancies.

The question of Dr. McNamara's paper was not the removal of tubes by the vagina, as I understood it, but was simply posterior colpotomy and drainage, and he claimed that if we could shorten the course of the salpingitis by drainage, which is a rational procedure, that we had conserved to the woman the possibility of further use of her generative organs, and showed by statistics that in a goodly proportion of these cases, the women were not cripples and maimed, as has been stated.

In regard to operations from above, it has to be constantly kept in mind that peristalsis disseminates infection. It does not make any difference to my mind whether we are operating on a gonorrheal pus tube or on a septic pus tube. The liquids are better handled by incision and drainage from below than they are from going to work and doing a more radical operation from above. By this procedure we get quiescence of our symptoms, and I know from personal experience, that cases that are running temperatures, with pus in the pelvis, are much better handled by incision and drainage. It is surprising to note in the few cases in which I have had the opportunity to do secondary operations, to find the condition of the tubes that have been previously incised. In one case I have in mind, where I subsequently operated for an ovarian cyst on the other side, the woman has become pregnant through the tube that was incised and drained. That membrane had been completely regenerated, and the pelvis was practically free from adhesions, showing what Nature, time, and possibly drainage had done for that particular woman.

One point that Dr. Jewett brought out is rather against the technic I follow. He spoke of washing out the tubes. It seems to me futile to include any such step in the technique, for we know that unless we destroy the so-called pyogenic wall, that we always get suppuration. We cannot, with any known chemical or salt solution or any other solution, wash out the abscess and stop the secretion of pus. Kelly, Pryor, and the men who are doing the greatest amount of work in this line, do not advocate the idea of washing, but simply make an incision in the tubes, put in a tight packing, isolate the pelvis from the intestines with rolls of gauze, and leave them there until we have



the pelvis completely separated from the general peritoneum, and in that way we have extra instead of an intra-peritoneal drainage.

Dr. H. C. KEENAN: I have been very much interested in listening to Dr. McNamara's paper. As I understand, the title of the paper reads "The Coming Treatment of Salpingitis." As far as the discussion has brought out, it seems to be the coming treatment of acute pus tubes, and it seems to have narrowed itself down to the abdominal *versus* the vaginal route of treating these cases.

This particular phase of the subject has, it seems to me, attracted the attention of the profession for some years past, and has been pretty well threshed out. As I understand, the European method seems to be in favor of the vaginal route, while the American method seems to be abdominal. However, I have met with a number of American operators who have favored the vaginal over the abdominal method of operating on these cases. I believe more and more are coming to treat their acute cases by vagina.

As to the results following these cases, I do not think that we will ever know what these results are until some physician with sufficient experience and sufficient patience, will gather what I call the "morbidity" statistics rather than the mortality statistics.

As Dr. McNamara has said too many cases leave the hospital discharged cured who go home minus tubes and ovaries and suffer from numerous nervous disturbances, or who have adhesions remaining in the pelvis after operation, and suffer from the same or worse symptoms than before the operation. These cases are not really cured.

Some time ago I operated on a case of acute salpingitis with pus. I removed the pus by the vaginal route. She is coming to the office now. She remained in the hospital about six weeks, and that brings me to the fact that I think Dr. MacEvitt is a little short on his figures when he said three to four weeks. I think a case of acute salpingitis, with a large exudation and a number of adhesions, if the pus is removed by vagina, that the patient should not leave the hospital for six weeks, and the adhesions will not clear up for a considerable period. I think the longer they remain in bed the better they do. After they leave the hospital, medical treatment is required, douches, etc., even as long as three or four months. I have found that most of these cases clear up very well, that the adhesions vanish, and that even if the uterus is displaced by the adhesions that it frequently gets back to place.

Dr. O. A. GORDON: Bearing on the question of operation from below, I have seen a case where the tube was almost completely enveloped in an adherent intestine. Now unless you had that tube down where you could inspect it, it would be very easy to go through that gut with your guarded knife. (Note—March 20, seventeen days after operation, the patient has not had an unfavorable symptom since tubes were removed.)

Dr. J. O. POLAK: I do not think any of the gentlemen realize the advantage of Pryor's trowel and the perineal retractor he uses and the position, by putting the patient in a Trendelenberg position and the use of the trowel and the use of ovariectomy forceps, which are practically only sponge forceps, you can bring these tubes down. You do not have to go up with your guarded knife. You get a good view of them. I think if Dr. Gordon would use the trowel once in the Pryor position, he would appreciate what he could see per vagina.

Dr. J. C. MACEVITT: One reason why we do not get the conditions due to the premature menopause, is this: Most surgeons of the present day conserve some portion of the ovary. I do not believe that in the last six years I have done an operation for enucleation without letting some portion of it remain.

Dr. L. G. BALDWIN: Dr. Gordon's remark has brought up a question I should like to ask, and it is this: How often have the gentlemen had wounds of the gut in this pelvic work? It has been my unfortunate experience in these cases to have a fecal fistula resulting from the packing or what not.

One other condition which I think has been rather emphasized in a way that it has not been my experience, is the terrible consequence to a woman who has had her ovaries taken out. I must say the condition of these women subsequent to the removal of pus tubes, is not the horrible condition pictured here to-night. It is true some of these cases occur in young women, but the average woman who gets a pus tube is not twenty, and in my experience where the ovaries have been removed for legitimate disease, counting out the acute cases which do not need any operation—cases of that kind—women having these tubes and ovaries removed are not in bad health afterwards in a majority of instances. Certainly not in my cases. Many of the cases I operated on twelve years ago are in perfect health, but cannot bear children.

Dr. S. J. McNAMARA: The discussion has brought up a great many questions, and the most

of them have been answered. The point of the paper was that many cases of purulent salpingitis, which might not necessarily be a pus tube, could be operated on more safely, with more consideration for the interests of the patient, by the vagina than it could by the abdominal route. It did not contemplate the taking out of tubes or ovaries by the vagina, but it did consider and intend to deal with the evacuating of any pus cavity we find there and packing with gauze.

Another point that occurs to me is that I consider it beyond the ability of any man to determine to what extent a pus tube must be diseased before its function is destroyed. The size of the cavity, the amount of pus in it, is not always in relative proportion to the diseased condition of that organ.

Regarding the point that Dr. Baldwin made that all women whose tubes and ovaries are removed are not in a terrible condition, I believe many of them are not, but still the statement does stand that there are a great many who are, and the fact that while it may be stated that many people with pus tubes are sterile anyhow, still they live in hope. A case comes to my mind that I frequently see in tears, because she feels she can never bear children. I know there are cases of women who feel that the anticipated menopause has brought about considerable harm to them.

I believe this subject is not placed properly before the patient before she is operated on, or she would take chances of having a secondary operation by having drainage from below. The operation is not without its dangers. As far as operating is concerned I would prefer to open the abdomen and take out pus tubes. I think it is a more satisfactory piece of surgery from the standpoint of the surgeon, but from a consideration of the patient I believe we should go in and operate through the vagina.

#### BROOKLYN PATHOLOGICAL SOCIETY.

HENRY G. WEBSTER, Editor.

The 447th Regular Meeting of this Society was held at the building of the Medical Society of the County of Kings, 1313 Bedford Avenue, Thursday evening, February 11, 1904.

The President, DR. JOHN C. McEVITT, occupied the Chair and 42 members were present.

#### PROGRAM.

"Some Points on the Pathology and Treat-

ment of Infantile Pneumonia." Paper, Dr. Henry A. Fairbairn.

Discussion opened by Drs. Henry N. Read and James T. Gallagher.

"The Pathology of Pneumonia." Paper, Dr. Archibald Murray.

Discussion opened by Drs. Harris Moak and George E. Deely.

#### PRESENTATION OF SPECIMEN AND REPORT OF CASE: CYSTIC DILATATION OF VERMIFORM APPENDIX.

DR. E. J. MORRIS: This specimen was removed by Dr. L. G. Baldwin January 16, 1904, from a woman aged 40, multipara, who had repeated attacks of pain in the right iliac region for the past two years. She also had an old laceration of the cervix and perineum and an endometritis, having flowed profusely for five or six months.



CYSTIC DILATATION OF VERMIFORM APPENDIX.

Her present illness began eight days before she was seen by Dr. Baldwin, with symptoms indicative of a ruptured pus tube. During this time she had been having pain in the right iliac region, with fever, but did not call in a physician until the day before operation, thinking the attack was no more serious than many previous ones from which she always got better.

She was seen by Dr. Baldwin at 5.30 P. M. on the evening of the 16th, at which time it was



evident that there was a general septic peritonitis present. Her temperature was  $103^{\circ}$  and pulse 140. The facial expression was bad, she was cyanosed, and the abdomen was very much distended and tympanitic. The operation, at which I assisted, was performed at 9 P. M. The abdomen was opened in the right side, and a thin, watery sero-pus immediately gushed out. An appendix  $3\frac{1}{2}$  inches long, about the size of one's thumb at the caecal end, with the distal extremity dilated to a diameter of  $1\frac{1}{2}$  inches, was ligated and removed. It contained a clear, gelatinous substance. The right tube and ovary were found to be the seat of a large tubo-ovarian abscess, which had ruptured, and the pelvis was filled with free pus. There was a fibroid the size of a small apple on the posterior wall of the uterus. The abdomen was irrigated with saline solution and closed without drainage. The patient did not rally and died at 12.45 next morning.

Cystic dilatation of the appendix is a rather rare condition. It is also known as hydrops of the appendix, mucocele of the appendix and retention cyst of the appendix. There are records of perhaps 30 cases. The contents vary in color and consistency. They are spoken of as gelatinous fluid (Coats, Weir, Kellynack), milky fluid (Fenwick), clear and tenacious (Deaver), mucilaginous contents (Barber), colloid material (Lilienthal), clear yellow color (Brewer, reported by Weir). The contents consist of the secretion of the mucous membrane which is retained in the dilated portion of the appendix, and which is caused by an obliteration of the lumen usually of the caecal end. The walls may be thinned and stretched out from inside pressure, or a compensatory hypertrophy of the muscular walls may take place resulting in a thickening.

Deaver, in his work on Appendicitis, says that this cystic development depends on the following factors:

"1. Complete constriction of the lumen. 2. The obstruction or obliteration must have obtained at a time when the affected portion of the organ contained no pathogenic micro-organisms. 3. The mucous membrane of the affected portion must be intact or at least capable of functioning. 4. And the secretion by the mucous membrane must be more rapid than the absorption from the portion of the appendix involved."

He says further: "If the obstruction is not complete, pathogenic bacteria are liable to gain entrance from the bowel and the cystic dilatation be converted into an empyema."

In this specimen the distal end of the appendix

was the dilated portion. In a case reported by Lilienthal (N. Y. Medical Journal, Feb. 7, 1903) the obliteration of the lumen was at the caecal and distal end and the enlargement in the center of the appendix.

The hydrops varies in size from that of a large hazel nut (Ferè) to that of a small orange (Deaver). In Brewer's case the appendix was  $4\frac{1}{2}$  inches long, and the dilatation  $1\frac{1}{2}$  inches in diameter, and in a case to be reported by Dr. Gildersleeve the appendix was fully six inches long, measured  $\frac{1}{2}$  inch in diameter at its base and 2 inches in diameter at its distal extremity. In the gelatinous contents there were found small bodies resembling rice grains, and a considerable quantity of gas escaped from the appendix as it was being removed.

Barber reported a case last June of cystic dilatation of the appendix (Transactions Associated Physicians Long Island, June, 1903), in which the obliteration of the lumen was not complete, there being a free opening into the bowel. The patient had been treated for two or three years for a supposed mucous colitis, passing in the stools large quantities of the same mucilaginous material as was found in the appendix after operation. No empyema of the appendix occurred. Treeves and Swallow (quoted by Deaver) mention a case due to angulation of the appendix by peritoneal adhesions, and when the angulation was relieved the contents escaped through the lumen into the bowel.

Mynter states (Appendicitis, p. 59) that in a series of 75 cases of appendicitis 15 were cases of cystic dilatation. He does not describe fully his meaning of cystic dilatation, and as Weir, Deaver, Brewer and Lilienthal have each had but one case, and all speak of the condition as being rare, it cannot be so common (20%), as Mynter's statement would seem to indicate.

#### PRESENTATION OF SPECIMEN AND REPORT OF CASE: IMPERFORATE ANUS.

DR. G. E. DEELY: This specimen was removed from a child which died when it was three days old. The child was born at St. Mary's Maternity, and at the time of birth the house physician noticed that it had an imperforate anus. The child was left the first day in the condition it was found when born. On the second morning it developed a convulsion, became cyanosed, and at that time Dr. Downey, who was in charge of the service, concluded that something should be done. He waited until the afternoon and then

performed an inguinal colostomy. The child lived until the subsequent day, and about four hours after death this specimen was removed.

### *Discussion.*

DR. J. D. SULLIVAN: I have two or three of these cases during my professional career, and two of them were operated on. They did very well, but it was a source of great annoyance, as long as they were under my observation, to prevent a stricture of the rectum. It was very easy to do the operation.

The lower end of the rectum is sometimes very near, but is usually one or two inches up from the surface. These two cases were operated on and got on very well. One died of diphtheria when six years of age, but up to that time every now and then the mother used to bring him to me to dilate the rectum. It would contract. I used a rectal bougie. I think if I ever did the operation again I would make a very large anus, and probably invert some of the skin to prevent the subsequent contraction of the anus. That appeared to be the great difficulty. The tendency after operations on these cases is for them to close and contract.

DR. C. C. HENRY: I might relate a case I had once, which I opened. The end of the bowel was  $1\frac{3}{4}$  inches from the imperforate anal opening. There was one feature in connection with it that I would like to mention. There was an escape of the rectal contents through the urethra, which I did not attempt to remedy.

I found, as did Dr. Sullivan, that there was a contraction of the wound, although I used a wool tampon to keep the rectum as large as possible during the healing process. The case went from under my observation, and later I understood that the child died of some intercurrent disease.

DR. J. C. MACEVITT: Showing the inutility of operations for imperforate anus recalls to mind a case I saw some 15 years ago, and it was in a manner historical in the sense that it was printed in the second issue of "The Pathological Journal." I do not know whether any of the members present are aware of the fact, that this Society at one time published a journal. While under the auspices of the Society it was edited by Dr. E. S. Bunker, who was Professor of Pathology at the Long Island College Hospital.

This particular case was an infant born at St. Mary's Maternity with an imperforate anus. I was acting as an assistant to Dr. Bunker, and he turned this infant over to my care. I attempted

to open through the supposed site of the anus, and after carrying my incision to a depth of about 3 inches, and failing to get any meconium or material from the bowel, I desisted, feeling it would be better for the child to die rather than to do a colostomy. It simply meant a life of torture and inconvenience and sorrow.

The child died about two weeks afterward. Of course, there was tympanitic distension of the abdomen and dullness due to the accumulation of the feces and intestinal secretion.

I did a post mortem and found that the rectum ended in a blind cul-de-sac just to the right of the promontory of the sacrum. There was no possibility of reaching it through the supposed anal situation, and had a colostomy been done, the child would, as I have said, lived a life of suffering and inconvenience.

DR. T. B. HEGEMAN: The case you have spoken of reminds me of a curious malformation in a still-born infant. The mother of this child had nephritis and the child was premature at seven months. It had an imperforate anus to the right of the sacrum, fully four inches above the ordinary place. No autopsy was allowed.

DR. G. E. DEELY: As we opened the abdomen we found a large dilated pouch terminated the end of the bowel, which is shown in this specimen very distinctly. This termination was just posterior to the bladder and adherent to it. Dr. Downey made an incision at the anal site, and after dissecting upward looking for the rectum and not finding it, decided that an inguinal colostomy was the only thing to be done, and resorted to that measure. The bowel was 2 inches from the site of the anus.

### PRESENTATION OF SPECIMEN AND REPORT OF CASE: CARCINOMATOUS STRICTURE OF THE SMALL INTESTINE.

DR. J. P. MURPHY: This specimen has a stricture of the small intestine due to a primary carcinoma. The history of the case is as follows:

E. G., admitted to St. Mary's Hospital, January 6, 1904. I was called to see her on January 1st. At that time the patient gave a history of being ill for two months, with more or less obstipation. She complained of pain in the abdomen, particularly after the ingestion of food. She had no vomiting, but the pain was intense. No positive diagnosis was made. I suggested that she go to the hospital for an exploratory laparotomy.

Upon opening the abdomen a stricture was found in the small intestines, which was almost impervious. At a distance of about six inches



from the primary stricture was another partial stricture of the bowel. A resection of 26 inches of bowel was made and a Murphy button used. After the button was in situ, it was discovered that it would not work. Another button was substituted and 4 inches more of the intestine resected. The woman reacted well after the operation. Her bowels moved naturally and did for 28 days, at the end of which time she died of a pneumonia.

Fortunately an autopsy was made. At the site where the button was placed union of the intestine was found, and its calibre was normal, except that where the button was placed the bowel had become constricted, so that the button had worked up toward the proximal end. There was no obstipation, but the button tended to act as a ball valve.

PAPER: SOME POINTS ON THE PATHOLOGY AND TREATMENT OF BRONCHO-PNEUMONIA IN INFANTS.

BY DR. HENRY A. FAIRBAIRN.

PAPER: THE PATHOLOGY OF PNEUMONIA.

BY DR. ARCHIBALD MURRAY.

*Discussion.*

DR. H. N. READ: I shall be very brief in what I have to say in the matter of treatment, and especially in the matter of pathology.

In discussing the subject of infantile pneumonias, we must bear in mind the distinctions drawn by Dr. Fairbairn as to the different varieties. He confines his paper to what used to be known as the essential pneumonia of childhood, of broncho pneumonia as it is called now.

In broncho pneumonia we have two varieties with marked distinctions, marked not only clinically, but pathologically and bacteriologically. The treatment does not differ materially, but the prognosis does. Primary broncho pneumonia is different from a pneumonia that follows an infectious disease.

As mentioned by Dr. Murray, the primary broncho pneumonias are due in about 50 per cent. of the cases to the bacillus of Fraenkel or lanceolatus—the others are the mixed infections. If one has a primary broncho pneumonia the prognosis is better than those cases where one has a mixed infection, for surgeons and physicians know the mixed are the very worst, and of all infections these mixed infections in which we have the streptococcus engrafted upon other bacteria are the most virulent.

The worst cases of broncho pneumonia are those in which we have the streptococcus. We

find this generally after scarlet fever or some other of the acute infections. The primary broncho pneumonia, which occurs as such, due to the pneumococcus has a better prognosis. At best it is a very fatal disease. The prognosis is always grave, whereas in ordinary croupous or fibrinous pneumonia, the prognosis is very good. In young children in broncho pneumonia it is extremely grave. It is also my experience that we do not get so much broncho pneumonia in private practice as we do in the hospitals, where the worst cases occur. These are the cases that give us our high death rate in broncho pneumonia, whether primary or secondary.

With regard to the treatment Dr. Fairbairn has touched upon this at some length and has suggested many excellent remedies. There is one of his remedies which I heartily endorse, *i.e.*, the ammonia salts. With reference to the selection of the particular kind, I do not agree with Dr. Fairbairn about the carbonate. I prefer the aromatic spirits, but I believe the ammonia has the best effect in loosening mucous of any of the drugs we have. My preference is for the aromatic spirits with the liquor ammoniæ acetatis.

Cough must be controlled by other drugs than opium, which is distinctly dangerous in this disease.

When the temperature runs high in these cases I much prefer the tepid bath. I never use the cold bath in delicate, young children. I tried it once or twice with very nearly disastrous results. I seldom put a weak child in a bath under 90°. Then you can reduce the temperature 5 or 6 degrees, but not more. In cases of collapse, the alternate cold bath at 80° and the warm bath at body temperature is valuable.

Next counter irritation is most excellent. The particular drug makes little difference. My preference is for mustard. I have never found anything to equal the application of mustard—hot mustard cloths or mustard plaster more or less strong.

In stimulants we have our sheet anchor. Alcohol in some form will bring them through, if anything will. Strychnine 1-500 gr. may be given to a child of one year to start, increasing to 1-120 gr. I think the action of digitalis in infants is harmful and have given it up. I rely mainly on stimulation by alcohol, strychnine and possibly the nitrites.

DR. J. T. GALLAGHER: So far as the cause of the disease is concerned we seem to be practically agreed. We seem to know the pathology and have that firmly fixed. My idea of the pathology

of broncho pneumonia is that it is an inflammation of the bronchial tube and not the mucous membrane.

(Continued in July Number.)

## BROOKLYN MEDICAL SOCIETY.

The Ninetieth Regular Monthly Meeting of the Brooklyn Medical Society was held on Friday, Feb. 19th, 1904.

The President, Dr. W. B. BRADER, in the chair. Minutes of previous meeting read and adopted. Applications for membership:

Dr. Louis Schaeffer, 157 Bedford Avenue; Cornell, '02.

Dr. John Halpin, 159 N. 6th Street; Bell, '99.

Dr. Paul Virdoni, 55 Withers Street; U. Naples, '99.

Admissions to membership:

Dr. Charles Gartner.

Letters were read, received and placed on file from Dr. W. F. Campbell and Dr. W. H. Rankin expressing appreciation for being appointed members of the Committee on Scientific Papers, and from Dr. P. J. Murray, Assistant Sanitary Superintendent, Brooklyn, for his election to membership.

### CLINICAL SECTION.

Dr. H. W. LINCOLN, Chairman.

1. Dr. S. H. PLATTEIS presented a case of Abscess of the Lung Due to a Foreign Body. He said that the child's family history was negative; had measles at 3 years; whooping-cough at 5; during an inspiratory spasm was taken with a lancinating pain in the left side towards axilla; developed a severe broncho-pneumonia involving the lobe between the fifth and eighth ribs; because of the presence of a septic temperature a diagnosis of pyopneumothorax was made, all the characteristic symptoms except succussion being present; this condition continued and patient began to vomit pus; on re-examination pneumonia thoroughly cleared up and the physical signs of bronchiectasis presented; child vomited pus four or five times a day; on examination of the pus no tubercle bacilli were found, but the presence of the streptococci showed a septic infection of a fairly severe type; morning temperature, 99; evening, 101 to 102; appearance was septic and she coughed continually. An X-ray picture was then taken, which disclosed a foreign body at the lower border of the left rib, where the left large bronchus began to ramify, which looked like a tooth. On aspiration a number of times the needle struck

the foreign body. After a fit of coughing a piece of metal was coughed up, and a second X-ray picture showed the logical sequence. There was then a gradual drop of temperature and improvement in child's condition.

2. Dr. E. J. McENTEE presented an interesting case of Facial Hematrophly. Condition started 17 years ago with a twitching in the neck, probably in the platysma; gradually spread to the muscles of the jaw, and the side of the face began to fall in. Some time ago lost some teeth on the affected side; gums fell away and teeth loosened. Fibrillary twitching has been almost constant in the affected muscles. Patient has two kinds of pain; one a dull ache due to the cramp-like condition of the masseter and temporal muscles, and a shooting pain extending back to the mastoid, due probably to facial neuralgia, being present only since the advent of the cold weather. The doctor said that the trophic function of the fifth nerve was important, and whether the condition was due to a disturbance thereof he left to discussion.

3. Dr. H. W. LINCOLN presented a case of Stricture of the Oesophagus in a woman, who gave no history of tuberculosis or malignancy. Patient with difficulty could take liquid food. There were no gastral-intestinal disturbances. Great loss of weight, but general strength was good. Passed a tube of small caliber and found stoppage in the lower third. Three X-ray photos revealed a growth, stricture or band ten inches from the incisor teeth on the left side of sternum. Only treatment was 10 drops of sat. sol. of K. I. after meals. Improvement was fairly satisfactory, she taking food in pulverized form and three spoonfuls of olive oil a day. The doctor said that the age of the patient and the location of the tumor pointed to malignancy, but the general improvement and responsiveness to K. I. treatment left it open for discussion.

Programme:

"When and How Shall we Operate for Hypertrophy of the Prostate Gland?"

Dr. Willy Meyer, of Manhattan.

Discussion by Drs. H. H. Morton and Muren.

A vote of thanks was extended to Dr. Meyer.

Motion made, seconded and carried that a message of condolence be conveyed to the family of Dr. Winter, one of our members who had recently died.

Resignation of Dr. H. N. Hoople read and referred to the Membership Committee.

Adjournment and social session.

HUGH EDWARD ROGERS, Rec. Sec'y.



## Brooklyn Medical Journal.

All communications, books for review, articles for publication, and exchanges should be addressed BROOKLYN MEDICAL JOURNAL, Library of the Medical Society of the County of Kings, 1313 Bedford Avenue, Borough of Brooklyn, New York.

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*Entered at Brooklyn, N. Y., post office as second-class matter.*

BROOKLYN-NEW YORK, JUNE, 1904.

### WATER SUPPLY OF BROOKLYN.

Rapid increase in the population of this city demands an immediate extension of its water supply, in order that a supply adequate for all emergencies of the present and contingencies of the near future may be met. If those best in a position to judge are correct, an increase of population more rapid than at any time in the past, will occur during the next twenty-five years.

The conditions of needed increased water supply are nearly identical both in this borough and in Manhattan. At the same time, the rate of increase of population is considered likely to be more rapid in this borough than in Manhattan.

The question of a common supply for both boroughs is under discussion. This would involve the extension of mains beneath the East River.

#### PLANS FOR THE EXTENSION OF THE WATER SUPPLY.

While the technical difficulties involved in any plan of enlarged water supply present a problem for the engineers to solve, a matter of chief interest to physicians is the obtaining of a supply free from contamination. With this end in view, the proposition to obtain an abundant water supply from the Hudson at a point not far distant from New York City, would, of necessity, require the establishment of sand filtration beds on an immense scale.

Sand filtration of river water has been adopted for the supply of European cities, and has been attended with success.

To the minds of many, however, the constantly present possibility of defective filtration may appear a drawback to this plan.

The utilization of the Esopus Creek, the Housatonic, or the Ramapo water-sheds, presents

only the difficulties which have been met in that of the Croton water-shed, our own Hempstead water supply, and others which utilize the waters of surface drainage to fill reservoirs and conduits. These systems which have been tested, are faulty only in that the surface drainage into these sources cannot be absolutely controlled, and a greater or less amount of excrementitious material which may or may not contain germs inimical to health, constantly finds its way into the water thus obtained.

A final plan, which is perhaps regarded with the least favor of all those under consideration, is that of a system of driven wells, or rather an extension of the system, for a part of Brooklyn's water supply is already derived from this source.

#### DRIVEN WELLS AS SOURCES OF WATER SUPPLY.

Concerning the possibilities of obtaining an abundance of water by this method on Long Island and without the necessity of entering Suffolk County, there is no question whatsoever. The quality of the water so obtained should be of purity sufficient to allow it to be immediately pumped into distributing mains. Water so obtained should be pumped from a depth at which it has filtered through so much soil as to have abstracted from it all traces of organic matter. The traces of common salt in the water of driven wells on Long Island is due not to sewerage contamination but to the vicinity of large bodies of salt water. One difficulty which this plan presents is the possible danger of rendering surface waters in the vicinity of the wells to become lowered, or perhaps in the case of small streams, to dry up. The supply to the well does not become materially lessened after long use, because of the large amount of water present in the earth at the depth to which these wells are driven. But in case of the surface moisture being materially lessened by an extensive system of driven wells, agricultural interests might be affected, and the city might, as a consequence, be forced into endless litigation over damage suits.

#### THE PHYSICIAN'S INTEREST IN THE CITY'S WATER SUPPLY.

The purity of the supply is the cardinal point of interest to the medical profession. The source of the city's supply should be that which is least likely to become contaminated by disease-bearing ingredients; and it should be with this object most prominently in view that the final solution of the question should be worked out.

The plan already under way—the immediate

extension of the system of driven wells for the relief of the conditions of pressing need—seems best fitted to meet the emergency; while for the future a commission with power should be appointed to examine into the sources and advantages of those water-sheds which have been mentioned as possible sources of fresh supply. We believe an advantage might result from an examination of the untapped source of water in the Adirondacks, where the State is already a possessor of large tracts of land, and where additional tracts might be acquired by the city at reasonable cost.

#### STANLEY G. CLARKE, M.D.

Dr. Clarke was born on the 17th day of July, 1844, at Camden, East Addington County, Ontario. His father was William Henry Clarke and his mother Hester Ann Warner, both of Ontario. Dr. Clarke was married on December 11, 1868, to Miss Sarah Amabel French, of Philadelphia, Pa.

His early education was obtained in the public schools and Newburgh Academy of Ontario.

His medical education was under the direction of John Grant, M.D., and completed at the University of the City of New York, where he received the degree of M.D. in the class of 1868. He was Acting Assistant Surgeon at Port Tuckerton Hospital, New Jersey, for a number of years, and in 1878 began the practice of medicine in this city, remaining until his death, March 5, 1904. He was an Inspector of the Health Department and Surgeon to the Central Throat Hospital; a member of the Medical Society, County of Kings, 1889-1904; the Brooklyn Medical Society, 1894-1904; The Associated Physicians of Long Island, 1902-1904, and the Burlington County Medical Society, N. J., of which was Vice-President in 1876.

WILLIAM SCHROEDER, M.D.,  
Chairman Hist. Com.

#### HOWARD JACKSON SEELEY, M.D.

Dr. Seeley was born at Adams, Mass., on December 23, 1875. His father was Frederick Barnard Seeley, of Ithaca, N. Y., and his mother, Sarah Tubbs, of Windsor, Mass.

He attended the public schools and graduated at the Stockbridge High School, and at Williams Academy in the class of 1895.

In the same year he began the study of medi-

cine under the direction of Theodore C. Burnett, M.D., and matriculated with the Long Island College Hospital, graduating M.D. in 1899.

He entered upon private practice in Stockbridge, Mass., but in 1900 returned to the city of Brooklyn, where he remained until shortly before his death, February 7, 1904, at Asheville, N. C., where he had gone in the hope of regaining his health. Dr. Seeley was a member of the Medical Society, County of Kings, from 1900 to 1904.

WILLIAM SCHROEDER, M.D.,  
Chairman of Historical Committee.



HENRY JACKSON SEELEY, M.D.

#### FREDERICK GRANVILLE WINTER, M.D.

Dr. Winter was born May 28, 1858, at Kingfield, Franklin County, Maine. He was the son of Elisha Smith Winter and Lucinda Bartlett Williamson, both of Maine.

Dr. Winter's education was received in the public schools, Kingfield High School, and Waite's Business College of Augusta, Maine.

His medical education was conducted under the direction of L. A. Dascomb, M.D., of Skowhegan, Maine, and at Bowdoin Medical College, in 1880, and the Long Island College Hospital, receiving the degree of M.D. in the latter college in the class of 1882.



He served as interne in the Eastern District Hospital in 1882-83, after which he began the practice of medicine in this city, where he remained until sickness compelled him to return to his native place, where he died on February 5, 1904.



F. G. WINTER, M.D.

During his professional life he held the position of physician to the Eastern District Dispensary, 1884-87; Surgeon to the Eastern District Hospital, 1887-96; Surgeon and Gynecologist to the Central Hospital and Polyclinic Dispensary, 1896-1904; Surgeon to the Bushwick and East Brooklyn Dispensary, 1884-1888, and the Bushwick Hospital, 1896-1904.

He was a member of the Medical Society, County of Kings, 1893-1904; Brooklyn Surgical Society, the German Hospital Association and the Brooklyn Medical Society, of which he was President in 1897.

His medical papers were as follows: "Surgical Treatment of Head Injuries," "Treatment of Talipes Equinas by Tenotomy and Elastic Bands," "Trajectory to be Attached to the Telephonic Bullet-probe."

Dr. Winter was married to Jennie E. Suydam, of Brooklyn, N. Y., on July 10, 1894. One child was born of this union—Clifford Maurice Winter.

WILLIAM SCHIROEDER, M.D.,  
Chairman of Historical Committee.

## MEDICAL NEWS.

EDITED BY CLARENCE REGINALD HYDE, M.D.

*It is earnestly hoped that all members of the profession possessing news concerning themselves or their friends, which would interest others, will communicate the same to the News Editor before the 9th of each month. Items for this department should be sent promptly to Clarence Reginald Hyde, M.D., 126 Joralemon Street.*

Dr. V. W. Weed announces his removal to 1238 Halsey Street.

Dr. William V. Pascual announces his removal to 601 St. Marks Avenue.

Dr. Henry R. Price announces his removal to 1290 Pacific Street.

Dr. Arthur H. Bogart announces his removal from 139 to 135 Seventh Avenue.

Dr. Grace D. Ives has removed to 257 Decatur Street.

Dr. A. F. Erdmann announces his removal from 408 to 458 Ninth Street.

Dr. Vincent Barber announces his removal to 269 Arlington Avenue.

Dr. R. C. F. Combes, after June 1st, will be at his summer home, Far Rockaway. He has telephone connection.

Dr. A. F. Erdmann has recently completed a course of lectures on "Anæsthesia," at the Long Island College Hospital.

Dr. James S. Cooley, of Glen Cove, was elected Secretary of the Nassau Hospital Association.

The Jewish Hospital Board of Directors is making an earnest endeavor to raise funds to complete the hospital building corner of St. Marks and Classon Avenues. A friend has offered \$25,000 on condition that \$25,000 more is raised. The hospital is non-sectarian.

The Alumni Association of the Long Island College Hospital held its annual meeting May 31st, at the Hoagland Laboratory, when officers for 1904-05 were elected. In the evening of the same date, the scientific meeting was held at the Kings County Medical Society Building. Papers were read by Dr. Robert L. Dickinson on "The Mechanics of Puerperal Sepsis," and by Dr. J. Clifton Edgar on "The Causes of Puerperal Morbidity which Antedate Delivery." The annual reunion and dinner of the Association was held at the Pouch Mansion on the evening of June 1st.

The annual commencement of the Long Island College Hospital occurred Thursday, June

2d, at the Montauk Theatre. The Rev. Dr. L. Mason Clarke was the orator of the evening.

The Paris Academy of Medicine, in view of the excellent results obtained in some countries by the mechanical protection of houses against mosquitoes, has resolved that the military authorities should adopt similar precautions, more especially in the French colony of Madagascar, where mosquitoes which spread malaria abound.

Dr. William Waterworth, of the Kings County Medical Society, died at his home, 3 Hancock Street, on May 11th, of sarcoma, after an illness of several months. He was born at Falen, Ohio, in 1851, and after being graduated from the Western Reserve College, came to New York and was graduated from Bellevue Medical College. He was later an interne in the Brooklyn Hospital, and at the time of his death was visiting physician at the Brooklyn Eye and Ear Hospital. He was one of the best-known physicians of the Bedford section.

Colonel Finkelmeier, Superintendent of the German Hospital since its organization, has resigned. The position has been filled by Mr. Pauley, who, since the resignation of Dr. Bunn, has served as Superintendent of St. John's Hospital.

Dr. Frederick Tilney has returned to Brooklyn after a year spent in the laboratories of Berlin.

Dr. R. M. Elliott has been transferred from the Flatbush State Hospital for the Insane to the Willard State Hospital, near Geneva, N. Y.

Dr. Oliver M. Dewing has been transferred to the position held by Dr. Elliott, from the superintendence of the Kings Park State Hospital, where he has been Superintendent since 1895.

Dr. Bishop, son of the late Dr. Henry M. Bishop, is home from the Philippines on a six months' leave of absence.

From the Department of Health, Fifty-fifth Street and Sixth Avenue, Borough of Manhattan, we have had the following communication addressed to us:

Owing to the prevalence in the city of epidemic cerebro-spinal meningitis, the Department of Health offers to place at the disposal of hospitals and medical practitioners the service of its laboratories to aid in the diagnosis of this extremely fatal disease.

The meningococcus (*Diplococcus intracellularis meningitidis* of Weichselbaum) is found in the cerebro-spinal fluid of the majority of cases, and usually also in the nasal secretion. The Department of Health will examine free of charge specimens of cerebro-spinal fluid, as well as smears of and cultures from, the nasal secre-

tion. Such examination will in many instances assist in the early recognition of the disease and in determining the nature of obscure cases.

Special outfits, consisting of a blood serum culture tube, a sterilized swab, and a glass slide for the smear, can be obtained at the Department of Health, Fifty-fifth Street and Sixth Avenue.

After obtaining the specimens they should be sent at once to the Department. Reports will be sent by telephone and mail. Specimens of cerebro-spinal fluid can be readily obtained by lumbar puncture, a simple operation easily performed by the attending physician himself, or any surgeon. The operation, in addition to being an aid in diagnosis, is directly beneficial because of the relief of the intra-spinal pressure.

The Annual Meeting of the Queens-Nassau Medical Society was held at Johrens' Hotel, Mineola, May 31. The following papers were read: "The Law and the Doctor," by R. F. Macfarlane, M.D.; "Some Random Notes on Obstetrics," by John M. Barry, M.D.; "Medical School Inspection," by Florence G. Emerson, M.D., Medical School Inspector of Brooklyn.

## BOOK REVIEWS.

THE PRACTICE OF OBSTETRICS; DESIGNED FOR THE USE OF STUDENTS AND PRACTITIONERS OF MEDICINE. By Dr. J. Clifton Edgar, Professor of Obstetrics and Clinical Midwifery in the Cornell University Medical College. Octavo, 1,111 pages; 1,221 illustrations. Price, cloth, \$6; sheep or half morocco, \$7. Phila., P. Blakiston's Son & Co.

Dr. Edgar's is the largest of the recent American works on its subject. It is at the same time one of the most elaborate and attractive of the recent obstetric text-books in point of mechanical execution.

Of its general scientific excellence no better assurance could be required than is afforded by the well known reputation of its scholarly author both as a writer and a teacher in his special field. Yet, we trust, that in certain particulars the author's teachings may be revised in another edition. For example, the acceptance of primary abdominal pregnancy, the teachings with reference to the pathology of eclampsia, and the somewhat liberal endorsement of craniotomy on the living child scarcely reflect the views of most modern obstetric authorities.

On the whole the book is a welcome contribution to the already rich literature of obstetric theory and practice. C. J.

OBSTETRICS FOR NURSES. By Joseph B. De Lee, M.D. Phila., N. Y., and Lond., W. B. Saunders & Co., 1904. Front., 460 pp., 15 pl., 1 ch. 8vo. Price, cloth, \$2.50.

Dr. De Lee's book is an excellent manual for the use of nurses. It presents in a concise and attractive form all the nurse needs to know of the care of the parturient and the puerperal woman and as well of the new born infant. More than this, it affords a useful reference book for nurses who may be ambitious to know something of the rudimentary facts and principles of obstetric practice. The work is written in a pleasing, semi-popular style and the text is well illustrated. Most of the illustrations are from original photographs.

The accomplished author is well known for his scientific eminence and his distinguished ability as a teacher and his work can be confidently recommended as a reliable guide to the latest and best methods in obstetric nursing. C. J.



# BROOKLYN MEDICAL JOURNAL

VOL. XVIII.

BROOKLYN-NEW YORK, JULY, 1904.

No. 7.

## ORIGINAL ARTICLES.

### BILHARZIOSIS.\*

BY WILLIAM H. RANKIN, M.D.

In recent years the subject of this paper has been brought to the attention of surgeons and pathologists in our seaport cities, because of our closer commercial relations with those countries in which the disease is known to be quite prevalent.

Bilharziosis, so called after its discoverer, Dr. Bilharz, is a disease caused by a parasite finding entrance into the body in some way not yet clearly understood, and setting up an inflammation in the various tissues infected. For a time it was thought that the only source of the disease was drinking the water of certain streams in Egypt and South Africa. Closer observation has demonstrated the danger of infection to be equally great from digging in the soil, or from bathing in such waters; the parasite thus entering through the rectum, vagina, urethra, or abrasions of the skin.

The male is about one-half an inch in length—a unisexual trematode worm—rather flattened, acquires a cylindrical appearance from thinned lateral margins of the body being infolded ventrally so as to overlap and form a sort of channel (the gynæcophonic canal) for the reception of the female during and after copulation.<sup>1</sup>

The female is longer and thinner than the male, and quite cylindrical. The eggs, or ova, are about 1-160 of an inch in length and pointed at one end, which is armed with a short, sharp spine terminal, in position when the ova are lodged in the urinary passages; but lateral when they lie in the mucosa of the bowel. The outer layer of the ova is a tough, hard shell of kreatin; inside this the yoke segments and develops into a ciliated embryo; the shell is ruptured and the now free swimming ciliated trematode probably

passes into the body of some intermediate host belonging to the snail tribe, where it changes into a cercaria to be subsequently acquired by man. The cercaria stage and the host are unknown; and just how the cycle from worm, ova, embryo to worm again, is completed is not quite clear. That this intermediate host is necessary in man is now doubted by some. Many surgeons<sup>2</sup> have demonstrated in the infected tissues numerous cysts that are lined with amorphous pigment, containing the male and female worm together copulating, and ova containing live embryos; and thus they believe it quite possible that the embryo may there develop into the full grown worm.

There has been a great deal of discussion as to the way in which the ova became scattered through the body. The distoma were first discovered in the large abdominal veins, and it was thought to be probable they would spread through these vessels if at all. This view was believed to be confirmed by finding numerous eggs in the small veins in the mucous membrane; but they have not been observed in the arteries, and it is not probable that they could make their way through the capillaries or against the direction of the blood stream in the veins. The most satisfactory explanation<sup>3</sup> would seem to be that the eggs deposited by the female in the bladder or intestines are carried by the lymph stream into the tissues and there perhaps partly transferred as emboli from the vessels to other organs. To sustain this theory is the fact that numerous ova have been found in rows in the lymphatic vessels. Whatever be the mode, or channel through which the eggs reach the tissues, it is known that no organ is exempt from their invasion.

The portal vein usually contains great numbers of them and the liver is quite extensively involved, the lesion produced being not unlike nutmeg liver. While the heart, stomach, spleen and pancreas are occasionally infected, it is in the lower colon, sigmoid flexure, rectum and uropoietic system that the serious pathological lesions are found.

\* Read before the Brooklyn Surgical Society, March 3, 1904.

The simplest, slightest and first change in the vesical mucous membrane consists of spots of hyperæmia, which are sometimes sharply outlined and sometimes somewhat obliterated at the borders.<sup>4</sup> There are many small extravasations of blood, the mucous membranes at such places being swollen and puffy, often, but not always, coated with viscid mucus, or with a greyish-yellow, yellow or sanguinous exudation. Quantities of the ova of the distomum are found in these discharges.

In isolated cases the entire mucous membrane of the bladder exhibits marked injection and ecchymosis, but in the great majority of the cases the process is limited to small spots, varying in size from a bean to a ten cent piece, particularly on the posterior wall. Frequently, at a later stage of the disease, are found greyish-yellow, or dull-white elevations of the mucous membrane, mingled with many spots of pigment. Sometimes there are smooth, leather-like coatings beneath the mucous membrane that appear as if they had lain in alcohol. The coating may be friable, presenting a fine *debris* and permeated with urinary salts, or a firm sand, consisting of eggs and eggshells, which cannot be removed without destroying the mucous membrane. All these changes are attributable to extravasation and to a process of inflammation set up by the distoma invading the smaller branches of the veins, and there depositing their ova, and the subsequent protrusion of the eggs from the ruptured vessels. Quite often on the vesical mucous membrane there are single or heaped-up excrescences or vegetations of a yellowish or a sanguineous ecchymosed appearance. They are slightly raised, wart-shaped or fungoid, the top split resembling condyloma, or shaped like cockscomb or raspberry, the base being somewhat restricted.

Considerable attention has been given to the histological characteristics of the blood of those suffering from Bilharziosis. Unlike many of the parasitic diseases, there is little or no diminution of the red blood cells, or of the hæmoglobin,<sup>5</sup> but there is always a slight leucocytosis. The percentage of coarse grained eosinophile leucocytes is, with very few exceptions, much above the average percentage found in normal blood. This increase goes hand in hand with a proportional diminution in the polymorphonuclear leucocytes. Less frequent is an increase in the large mononuclear leucocytes, and when this is present it is associated with a diminution of the lymphocytes. It is not improbable that the amorphous pigment-like masses found in the cavities, in which

worms are present, contain some element or virus that alters the blood.

Geographically, there is now a wide distribution of the disease first discovered among the natives in the desert of the Nile. The dysentery of the Mauritius has long been known to be caused by this parasite. From time to time in medical literature, cases have been reported in India, Persia and the countries on the shores of the Mediterranean. Since the war in South Africa between the British and the Boers it has excited considerable interest, not only because of the number of soldiers affected, but because of the fact that these men have seemingly carried the disease out of Africa to the different stations to which they were assigned since the war. Nor is it from the soldier only that we may expect the spreading of the disease, but also from the numerous class of men constantly passing from one country to another in the pursuit of trade or pleasure.

Within two years on this side of the Atlantic a few cases have been seen in New York, some in Canada from the returned regiments, and one case has been reported from the West Indies, which has been attributed to the Boer prisoners or British troops. During the same time many men in the British Army have been invalided to England because of their sufferings from this disease.

As many of the ships trading between Africa and this port berth at the piers in Brooklyn, it is to be expected that cases of Bilharziosis will be seeking treatment at our hospitals. I have seen one such in a sailor who came to the Polhemus Memorial Clinic for relief from the intolerable pain in the bladder and abdomen. Clinically, the parasite does not seem to have the same power of impairing or destroying tissue in the young as in those more advanced in years, and therefore the suffering may be very slight, or the disease pass almost without complaint. In the majority of cases it will extend or run its course over a period of from two to ten years. Whether this considerable difference in time is due to reinfection in some, or greater resistance on the part of other individuals (it is known that the black race is almost immune), or whether the parasite loses its vitality earlier in some cases than in others, are questions that remain unanswered. Once they find lodgment in the tissues, they set up an inflammation in the mucous membrane which is followed by the formation of new fibrous tissue that replaces the glandular elements. Quite frequently, there is great over-



growth of the normal elements of the parts attacked with the formation of polypi and growths taking on all the clinical characteristics of malignant disease. It is noteworthy that many of these cases suffering from this parasite develop and die of intercurrent cancer<sup>6</sup> of the bladder and rectum that may be either of sarcomatous or carcinomatous variety. But whether the parasites merely play the part of irritants in a person in some way predisposed to malignant disease, or whether the relationship between the parasite and proliferous tissue growths, which we are accustomed to speak of as cancer, is even more connected and intimate, are points among others which naturally become prominent in connection with the consideration of this subject.

The symptoms first complained of are malaise, backache, and pain referable to either the bladder or rectum. From the rectum there may be a discharge of a viscid yellow, or greenish-yellow mucus, sometimes mixed with blood. The tenesmus is severe and persistent, and the rectum may be more or less prolapsed; the mucous membrane is congested and infiltrated, while here and there over the surface may be numerous small ulcers, or small polypi containing worms.

In the ischio-rectal region may be abscesses, or perineal fistulæ, the walls of which are thick and fibrous in character and in which are often numerous worms and ova. The sigmoid is frequently so thickened as to be distinctly palpated in the iliac fossa, but the disease rarely extends above the descending colon, although ova have been found in the small intestine. The mesentery is often much thickened and inflamed by the eggs of the distomum that find there way there through the lymph vessels from the intestines.

To positively confirm the diagnosis of Bilharziosis, it is necessary to find the ova in the mucous discharge from the rectum, or in the urine. Usually this is not difficult, for if on the first examination of the mucus from the rectum no eggs are found, a brisk calomel or saline purge will bring away great numbers of them. The urine should be centrifuged when the ova can nearly always be found in varying numbers, as well as some leucocytes, a large proportion of which are coarse grained eosinophiles.

In the uropoietic system the lesions are the most serious, and from the bladder, as a rule, the patient finds the first warning of his trouble. While urinating, the stream is observed to be dark in color, or slightly red, and at the end of micturition a little pure blood may be forced

out, followed by a sharp pain. Frequently there is a urethral discharge not unlike that of gonorrhea, and only differentiated by microscopical examination. The mucous membrane may be swollen and may contain numerous lesions, the same as in the mucous membrane elsewhere involved and already described. Occasionally the roof, or the floor of the urethra will be pierced by ulceration which will lead to infection and pus, burrowing in various directions, and often for some distance, before it finds an opening.



SEDIMENT OF BILHARZIA URINE, BILHARZIA OVA (ONE WELL-DEFINED IS SEEN IN LOWER LEFT-HAND CORNER, HALF INCH FROM MARGIN), CRYSTALS OF OXYLATES, ETC.

In the bladder the symptoms are those of acute or chronic cystitis, that may be complicated by tumors or urinary calculi. The miseries of one with an urethra so swollen and obstructed as not to admit the passing of a catheter, a urethral fistula carrying urine to be discharged over the abdomen or through numerous openings in the perineum, and a bladder that has become infected, need not be further described. Once the bladder has become diseased, the ureter may follow the same course as the urethra, and thus we

may have strictured or obstructed ureters, a hydro-nephrosis, or a pyo-nephrosis, with their accompanying symptoms and sequelæ.

The prognosis in Belharziosis would seem to be more grave in some countries than in others. Physicians in Cape Colony say it causes few deaths, but in Egypt it saps the strength of the young and causes adults to die in the prime of life, there being a mortality of from eight to ten per cent. in that country.

The fact that the disease may be merely local in the beginning or soon after the parasite enters the urethra or rectum, makes an early diagnosis and prompt treatment of the greatest importance.

As it has been my purpose to bring this subject to the attention of this Society, rather than to offer any suggestions as to its treatment, I shall merely add that the application of the general surgical principles that are appropriate for the various lesions met with, cannot but give relief to those so distressingly afflicted.

I owe my best thanks to Dr. Eugene A. Pool, of Manhattan, who kindly allowed me to use his splendid photomicrographs.

<sup>1</sup> 20th Century Medicine.

<sup>2</sup> F. C. Madden.—*Journal Tropical Medicine*.

<sup>3</sup> Goebel.—*Journal Tropical Medicine*.

<sup>4</sup> Griesinger.—Clinical and Anatomical observations on the diseases of Egypt.

<sup>5</sup> Douglas & Hardy.—*London Lancet*. 1903.

#### HOW FAR SHALL WE TREAT THE GALL-BLADDER AS WE DO THE APPENDIX?\*

BY RICHARD WARD WESTBROOK, M.D.,

Adjunct Attending Surgeon, Brooklyn Hospital.

This is one of the burning questions for the surgeon at the present time, and it is no less important for the medical practitioner. On the latter depends the decision as to whether his patient with gall-stone disease, shall receive early surgical treatment, as well as his patient with a diseased appendix. Unanimity prevails among the profession as to appendicitis being a surgical disease, and as to the wisdom of early and radical surgical intervention. This is not true of gall-stones, the large body of medical men clinging to the small chance of spontaneous or medical cure, and the surgeons differing considerably as to the best methods of surgical relief. But the basis of a satisfactory surgical treatment of gall-stone disease has been laid, and it only remains to work out rules of procedure in differing conditions, which increased experience will soon be

able to determine for us. There is no question but that the surgeon is coming to look more and more upon the gall-bladder as he does upon the appendix vermiformis, as a useless appendage, capable of producing unlimited mischief when diseased, and "better out than in" at any time. This feeling was well expressed by Prof. Roswell Park, two years ago, in a short paper read before the American Surgical Association. In this paper he called attention to many points of similarity between the gall-bladder and the appendix, and advocated strongly the radical and complete routine extirpation of the gall-bladder. I do not believe that our present knowledge entirely warrants this attitude, although the leaning toward extirpation is generally growing. How far we are warranted in treating the gall-bladder as we do the appendix is the problem which I wish to discuss to-night, by taking up with you the following questions. Is the gall-bladder very similar, anatomically, to the appendix? Has it any useful function in the economy? Do gall-stones originate also in the ducts outside the gall-bladder? Do gall-stones recur after operations for their removal? Can they be cured by medical treatment? Do not the demands of safe surgery often require the preservation of the gall-bladder in surgical procedures? And, what are the conditions of the biliary passages where the gall-bladder is, without question, better out than in.

IS THE GALL-BLADDER VERY SIMILAR, ANATOMICALLY AND PATHOLOGICALLY, TO THE APPENDIX?

Park says that both structures are hollow receptacles, more or less tubular in shape, both normally contain a certain amount of secretion from which calcareous deposits may be precipitated; both are lined with mucosa, continuous with that of the intestine, and in both bacterial infection and inflammation begin so soon as occlusion or interference with the exit of their secretions occur. This is all true, but here the analogy ceases. The appendix is a simple structure, clearly vestigial and without function, simply attached to the cæcum, whence it may be snipped off and the little opening closed, with no possible loss resulting from its absence. But not so the gall-bladder, which is a functional and continuous part of a system of bile-ducts of wide extent, reaching out into the substance of the liver and down to the duodenum, and incorporating with itself the exit of the pancreatic duct, near its duodenal orifice. Infection within the gall-bladder means usually infection within the bile-duct system, and cutting away the in-

\* Read before the Medical Society of the County of Kings, May 17, 1904.



fected gall-bladder with its stones does not remove the essential condition of danger, the infection of the bile-channels. The appendix differs widely from the gall-bladder, in that its blood supply is from a single terminal artery without anastomosis, allowing rapid gangrene as a very frequent occurrence in inflammation here. The gall-bladder, on the other hand, has a very free blood supply, not only through the branches of the cystic artery, but also through anastomoses with the hepatic vessels where the gall-bladder is fixed to the liver. Acute gangrenous inflammation of the gall-bladder is consequently of rare occurrence. The walls of the appendix are made up of tissue which permits of little distention without necrosis and perforation, while the gall-bladder may distend enormously without necrosis or rupture. The removal of the appendix is ordinarily a simple matter to the surgeon, with its single artery to tie, and its accessible position. But the gall-bladder must be removed from the under surface of the liver, leaving a bare, oozing area, and the cystic duct is in close relation with the hepatic and cystic arteries, the portal vein and even the inferior vena cava.

Anatomically and pathologically, therefore, the resemblances are not really very great between the gall-bladder and appendix. But clinically, just as an appendix, the subject of chronic disease, will disturb the functions of the parts adjacent to it—bowels, ovary, or even bladder—so will the gall-bladder, in similar conditions, by adhesions to omentum, stomach and intestines, give rise to pain and dyspeptic symptoms, usually referred to the stomach.

#### HAS THE GALL-BLADDER ANY IMPORTANT FUNCTION IN THE ECONOMY?

This is an interesting question. Some observers are inclined to regard it as a rudimentary or vestigial structure like the appendix, but this does not hold, as the study of lower forms of life does not show that it represents any more highly developed organ than it is found to be today. Its distribution in the lower forms is very peculiar, it being present in some and absent in other members of the same order for no apparent reason. The ox has a gall-bladder, but the horse has none. The goat has a gall-bladder, but the deer has none. The hawk has it, but not the dove. But, in general, the presence or absence of the gall-bladder depends upon the character of the food of the animal, and the type of the digestion. For instance, most of the flesh eaters have a gall-bladder, and in them the type

of digestion is the intermittent, there being periods of rest between periods of active digestion. But in many of the vegetable eaters, digestion is carried on nearly continuously, and here the gall-bladder is often absent and the bile flows fairly constantly through the bile-ducts directly into the duodenum. These facts suggest the function of the gall-bladder as being merely that of a storage reservoir, where, in the intervals between digestion, the bile is carried, the sphincter muscle at the duodenal end of the common-duct not permitting it to flow out into the intestine. Yet, as a storage reservoir, it is entirely insignificant, its capacity being only about an ounce, while the daily amount of bile secreted is from thirty to forty ounces. The gall-bladder has been also considered a flush-tank, which can at intervals expel its contents in such a way as to clear the common-duct of infective agents which may enter it from the intestinal canal. This view would seem the more likely in the light of recent observations, which go to show that what little antiseptic property the bile possesses is derived from its admixture with the gall-bladder secretion. But the theory does not hold good, as in some lower forms more than one duct conveys the bile to the duodenum, and one of these ducts may be provided with a gall-bladder where another may not. (See Fig. 4.) It has been looked upon, too, as a tension-bulb, in some way regulating the tension in bile-ducts and liver; but its inadequate muscular structure and disadvantageous position, with its fundus lower than its outlet, seem to contradict that theory.

Whatever the function of the gall-bladder, it is surely not an indispensable organ. Apparently, patients from whom it has been removed get on quite as comfortably and healthfully without it as those who have normal gall-bladders. It is, however, rather too early to say that it has practically no function, and may be sacrificed without consideration of possible usefulness. Its variability in the different forms simply emphasizes the fact that it is a modified portion of the hepatic duct-system, and must be considered as a part of a functional whole. The accompanying chart will show some of the variations of the bile-duct system in different lower forms. Fig. 1 shows the form encountered in man and most mammals. Here the hepatic duct joins the cystic duct to form the common bile-duct, which enters the duodenum by passing obliquely through the intestinal wall. Fig. 2 shows a form occurring in certain mammals and some fishes, where instead of one hepatic duct, two or more hepatic

ducts may join the cystic duct separately to form the common bile-duct. Fig. 3 shows an arrangement found in the calf, sheep and dog, where of two hepatic ducts only one helps to form the common duct with the cystic duct, and the other leads from the liver directly into the gall-bladder. In Fig. 4, no common bile-duct is present, one hepatic duct carrying the bile directly to the gall-bladder, and the other directly into the intestine. Some mammals, most birds and certain reptiles are of this type. When the gall-bladder is absent, a single large duct runs from the liver to the intestine, or, instead, a number of smaller ducts, which enter the intestine successively.

In this connection, it is interesting to note that the bile is chiefly excrementitious, being constantly formed and cast out. Its antiseptic properties are unimportant, and its presence in the intestine is not necessary for the digestion of an amount of fat sufficient to support life and keep up nutrition. I have seen patients increase in health and weight, and maintain apparently perfect digestion, with all the bile flowing for months through an external fistula.

#### ARE GALL-STONES OFTEN FORMED IN THE BILE-DUCTS OUTSIDE OF THE GALL-BLADDER?

We must be positive on this point, if we expect to cure our patients of gall-stone disease by removing the gall-bladder. All observers are agreed that gall-stones almost invariably originate in the gall-bladder, and that the hepatic and the common ducts are but rarely their seat of origin. Also, that gall-stones are the result, primarily, of a mild microbic invasion of the gall-bladder, and due to no fault of the bile itself. Many cases occur as a result of typhoid fever, and typhoid bacilli have been found embedded in the centre of calculi. Infectious inflammation of the mucous lining of the gall-bladder—cholecystitis—combined with slowing of the bile-current there, gives rise to the stones. Mucous catarrh causes a depositing of a lime-bilirubin compound from the concentrated bile in the gall-bladder, and around these nuclei, cholestrin quickly forms. Five or six months are required for the perfect formation of a calculus, in experiments on the lower animals. Infectious inflammation of the rest of the bile tract may also occur, but here the infectious products are swept along in the bile stream, and do not remain long enough to permit of the deposit of solid material. Possibly stones may form in diverticula of the bile-ducts, where the bile-current is slow, but when stones form in the hepatic or common ducts, it is because of obstruction to the bile-current

through those ducts, produced primarily by stones which have made their way out of the gall-bladder and become impacted in the common duct. The first cause, therefore, of practically all calculi found in the biliary passages, is the gall-bladder, and the formation of gall-stones in the bile ducts need not be feared after the removal of the gall-bladder, provided the operation has left those ducts in healthy condition.

#### DO GALL-STONES RECUR AFTER OPERATIONS FOR THEIR REMOVAL?

A very large number of observations are now on record, which prove beyond doubt that gall-stones re-form very rarely after the approved operations for their removal. Many cases are recorded where old gall-stones left at the first operation, by accident or necessity, have been removed at a second operation. But careful observation by several of the largest operators has produced no instance of the recurrence of stones after a complete operation. Apparent recurrences are occasionally seen and are usually due to old adhesions about the gall-bladder site, producing traction on, and kinking, of the bile-ducts.

#### CAN GALL-STONE DISEASE BE CURED BY MEDICAL TREATMENT?

In considering the medical treatment of gall-stone disease, we must dismiss from our minds at the outset the old notion that we are merely combatting a constitutional condition or diathesis, which manifests itself in the formation of gall-stones, and that after a classic attack of biliary colic, with jaundice, and the finding of gall-stones in the stools, a successful labor and emptying of the gall-bladder have occurred, and that attention has then only to be turned to the diathesis to prevent the stones from again forming. Such attacks are not a physiological curative process, except in a very small number of cases, and those where the concretions are small in size. As a rule many stones are present, and while one or two small ones may pass through the ducts, the larger ones remain behind to make future trouble. Where gall-stones have ever been found in the stools, almost invariably at operations are other stones found remaining in the gall-bladder.

But it is not the mere presence of gall-stones in the bile passages which produces the clinical manifestations and the dangers of the disease—it is the presence of inflammation, due to infection, and the gall-stones are simply an exciting cause of that inflammation. This is the gist of the whole matter and must be insisted upon. In fact, cholecystitis, due to infection, is not at all



uncommon when no trace of gall-stones is present, the symptoms being practically the same as suppurative cholecystitis with gall-stones. Autopsies show that about one adult in every ten is the subject of gall-stones, and it is said that only about 5 per cent of those so affected ever present any symptoms which call attention to the disease. Gall-stones have been frequently found in the gall-bladder at abdominal operations for other diseases, and such patients when questioned have given absolutely no history of symptoms from them. Such stones are known as "latent" or "slumbering" stones. It is the presence of infection, then, in the gall bladder which gives rise to the cholecystitis, which in turn gives rise to increased secretion and distention, and sets up the gall bladder contractions which drive the stones toward the cystic duct. If the stones be forced out into the common duct, obstruction and damming back of bile take place, either by lodgment of the stone or by swelling of the mucous membrane, produced by its passage, and jaundice occurs. If the stone does not pass the cystic duct, jaundice does not occur. As a matter of fact, jaundice does not occur in more than twenty per cent. of cases of cholecystitis with gall-stones, and because of the absence of jaundice, the failure to recognize an otherwise well-defined condition is common. When the common duct becomes obstructed by stones, we have no longer a local gall-bladder affection—infective inflammation of the whole bile-duct system—cholangitis—may occur with most dangerous consequences. The infection may also involve the pancreas through its ducts with dangerous results.

It was an infection—of mild degree perhaps—which first produced the stones in the gall-bladder, and it is a reinfection, or a blazing out of smouldering infection, which causes inflammation again in a gall-bladder compromised by the traumatism and obstruction of calculi. Here, at least, the analogy with the appendix is complete, for in both instances the pressure traumatism and interference with the drainage of infected secretions by foreign bodies usually precipitates the acute attack or perpetuates the chronic. In a word, then, infection is what we have to combat in gall-stone disease as the first essential of either medical or surgical treatment.

Medical treatment can accomplish only two things in gall-stone disease—it may be preventive and palliative, never radical. There is no reliable evidence that medicine ever dissolved a gall-stone in the gall-bladder or ducts. Medicine can reduce the inflammation in the bile-tract, and

thus relieve symptoms, and possibly cause the stones to become latent. This is the secret of the Carlsbad cure. One whose gall-stones are still confined to the gall-bladder may go to Carlsbad, and temperate living, frequent bathing, exercise, and the free drinking of laxative waters allay the inflammation and reduce his gall-stones for a longer or shorter period to a condition of rest; or he may accomplish the same thing at home by similar means. The same treatment might also render quiescent a grumbling appendix. But the disease itself is untouched, in both cases, and inflammation, with its possible disastrous consequences prone to recur.

The cases of gall-stones reported as having been dissolved or disintegrated by medical means, I believe to be cases where they have been merely reduced to quiescence for the time being. Gall-stones in the common duct may even become quiescent for long periods, the duct dilating, the inflammation and swelling of the mucous membrane subsiding, and the bile flowing freely past the stone into the intestine. I had almost believed in the disintegration of gall-stones myself, because of one case of mine, but later developments brought me back to the opposite opinion. An elderly lady came into my hands, profoundly jaundiced and septic from obstruction and inflammation of the common duct. As her condition was so bad, I did only the palliative operation of drainage of the gall-bladder (cholecystostomy), removing the stones in that organ, and through it draining the infected bile into the outer world. I warned her that, as soon as her condition permitted it, the stone in the common duct should be removed by a second operation. Rather, to my surprise, the fistula through which all her bile was draining closed up after six or eight months, and the bile made its way normally into the bowel. She had been placed on Carlsbad treatment, and, at her own solicitation, olive oil. I suspected that fistulous ulceration into the intestine accounted for removal of the stone, but there had been no evidence of it. Her condition remained good for nearly two years, when she again presented increasing evidences of common duct obstruction, and a few months later I removed an old stone from that passage. I found no recurrence of stones in the drained gall-bladder. In this case, I am of opinion that the first prolonged draining of the bile-tract reduced the inflammatory process, and by careful living the patient was able to keep even a common duct stone latent for two years, long enough to have claimed a medical victory.

It is in the *gall-bladder stage* of cholelithiasis where medical treatment may palliate the most, where obstruction and infection are not present in the ducts outside, and jaundice, too, is absent. Yet this is the stage which is often unrecognized by medical men, and diagnoses of gastralgia, ulcer of the stomach, torpid liver, dyspepsia and so forth are made, the treatment of which may often be in line to reduce the catarrhal cholecystitis, apparently verifying the diagnosis. Where more troublesome attacks of cholecystitis have occurred, giving rise to peritoneal adhesions to stomach and bowels, these symptoms are all aggravated, and being due to mechanical causes, may be relieved only by surgery. In fact, dyspepsia is often a surgical disease, a point to be kept in mind. And while the statement has been made by Riedel, that only 5 per cent. of those who are subjects of gall-stones ever have symptoms from them, I am inclined to think that his percentage is too small and that many of the remaining 95 per cent. suffer from gastric and so-called liver symptoms. Since I have been especially interested in this subject, I have seen cases, and recalled others previously seen, of discomfort, or dragging pain, in the right hypochondrium, extending around in the back to the infra-scapula region, which were undoubtedly gall-bladder cases. Such patients will often present a point of tenderness about midway on a line from the 9th costal cartilage to the umbilicus, which is as typical of cholecystitis as McBurney's point is of appendicitis. They may not present colics, but their "liver pain" may recur during attacks of bronchitis or other illness, or from over-exertion or fatigue, and slowly clear up on reduced diet and laxatives. Another tender point may be found in the back in these cases, which is also characteristic of more acute attacks, immediately to the right of the 11th and 12th dorsal spines (Boas' point).

We have seen that the medical treatment of gall-stones can be no more radical than that of appendicitis, and must be directed to the reduction of inflammatory processes and placing the stones at rest. Sanguine investigators will, however, continue the search for the medicine which will dissolve gall-stones *in situ*, and do away with all surgical treatment. A recent experimenter has stated that on inserting large gall-stones in the gall-bladders of healthy dogs, under strict asepsis, they were completely dissolved in periods of from six months to one year, proving that healthy bile has the power of dissolving gall-stones. If the stones were inserted, and at the

same time a cholecystitis were produced, the stones were not dissolved, showing that bile in the presence of cholecystitis has no solvent power. Cholecystitis increases the amount of cholestrin in the bile, and decreases the bile salts, and it is the bile salts which hold the cholestrin in solution in normal bile, preventing precipitation and consequent formation of gall-stones. Arguing with these facts as a basis, another writer in a recent number of the New York Medical Journal asserts that it is evident that by administering sodium glycocholate to increase the proportion of bile-salts, it should not only prevent the formation of gall-stones, but dissolve those already formed. This is purely theoretical, and quite impractical. He has overlooked the fact that cholecystitis is always present in some degree with gall-stones, and certainly where they cause symptoms.

#### SURGICAL TREATMENT OF GALL-STONES.

But what shall we do surgically with this offending organ, the gall-bladder? It is not an indispensable part of the economy: it is the breeding place of gall-stones; it gives rise to almost as much chronic disease and disability in adult life as the appendix—why not take it out and be rid of it, as we do the appendix? Here we must come back to what we stated at the outset. The vermiform appendix is a simple, useless remnant, easily removed when diseased, with no possible harm to surrounding parts, but only good, from the riddance of an obnoxious neighbor. While the gall-bladder, on the other hand, is a continuous part of a complex system of bile-ducts, and we cannot remove it without discriminating as to possible harmful effects upon that system. Mayo, of Minnesota, who has had the largest experience in gall-bladder surgery in this country, says that a gall-bladder once infected is always infected (presumably if stones have formed), and needs only a disturbing element to reproduce the infection in its original (or greater) intensity. Given an infected gall-bladder, containing stones which cause mechanical irritation, and we have the most favorable conditions for the frequent liberation of infections into the common duct, and if this be accompanied by calculi which fail to pass out at the duodenal orifice, we have all the conditions present for the development of a general infective cholangitis with all its dark possibilities of septicæmia, cholæmia, liver abscess, pancreatitis, etc. Now, when we operate for gall-stone disease, we do so first of all to relieve an infection by pus-forming organisms—in a word, *drainage* of the infected biliary tract is what we aim at.



The removal of the gall-stones comes second in importance, and is to insure a radical cure. Opening a gall-bladder, removing the stones, and closing it at once by suture—the so-called “ideal” cholecystotomy—was formerly done, but is no longer considered good surgery, as it is recognized that such a gall-bladder is infected, and should be drained. The only case of ideal cholecystotomy which I have had under my care was one done by a surgeon out of town, who referred the patient to me when she came to live in Brooklyn soon after. Within a year after her operation, all the symptoms of cholelithiasis recurred.

Drainage then is what we aim at in our surgery, and the easiest and safest way by which we can drain the bile passages is through the gall-bladder itself. Here, at least, is one useful feature of the gall-bladder—it forms a good drainage tube for the surgeon, the only really useful feature about the gall-bladder of which I am at all sure. By opening its fundus and inserting into it a tube of rubber, held by a purse-string suture, we may safely guide our infected bile outside the body, and if we have freed all the ducts of stones, the fistula will close in two or three weeks, and stones will not re-form. But oftentimes a gall-bladder long diseased is thickened and shrunken, and far removed from the surface by gradual contraction. Here the difficulties of drainage through the remains of the gall-bladder may be greater than those of removal, and to ligate the cystic duct and extirpate the bladder may be safest. We must, however, not omit to drain the bile passages here, and the insertion of a drainage tube into the common or hepatic duct becomes necessary—always a formidable procedure. A great deal has been written of late about this drainage of the hepatic duct combined with removal of the gall-bladder, especially by Professor Kehr, of Germany, largely when stones are removed from the common duct. An incision is made in the common duct, stones are removed if present, and a rubber drainage tube is passed up an inch or two through the opening into the hepatic duct. This has become with Kehr almost his routine procedure in cases operated on in the interval between acute attacks. The difficulties of such an operation may be appreciated when one traces the course of the common duct. A very long incision has to be made in the abdominal wall, and the search for the common and hepatic ducts in the depths under the liver is difficult and dangerous, one having to keep well in mind their relations to the hepatic

artery and portal vein, and even the inferior vena cava. Peritoneal adhesions of liver and gall-bladder to colon, stomach, duodenum and omentum are usually present to greatly add to the difficulties. Now, the cystic duct drains the hepatic duct, but only in lesser degree than direct tube drainage, and the question in any given case should be, Is not drainage through the gall-bladder and cystic-duct likely to be sufficient? If the cystic duct is thoroughly patent, if bile is found in the gall-bladder at operation, showing the latter to still be a functional part of the bile tract, then save the gall-bladder and make use of it as a natural drainage way for the infected ducts, both safe and easy as compared with formidable hepatic drainage. But if the cystic duct be no longer patent, if it is closed by stones which cannot be readily removed, or by stricture or the kinking of adhesions—in other words, if it be no longer a functional part of the bile tract—then remove the gall-bladder, for it will make constant trouble if left. Such a gall-bladder is of no value for drainage, neither is drainage of the bile-ducts demanded in such a case, for we find no bile in the gall-bladder, and it, in turn, has been cut off from infecting the biliary tract by closure of its only exit, the cystic duct. Cancer or gangrene of the gall-bladder, often associated with stones, of course demands removal of it.

Extirpation of the gall-bladder, even in experienced hands, is a more serious operation than drainage. Robson's statistics, just published, show at his experienced hands, a mortality of six per cent. as against one per cent. in drainage. His mortality will, in future, be undoubtedly less, with improved technique. Kehr's mortality has been three per cent. against two per cent. Comparatively healthy gall-bladders are extirpated frequently at the present time, and no provision made for bile drainage externally, the operator assuring himself, of course, that there are no stones in the ducts and that the common duct is patent, depending on natural drainage into the intestine. The results in such cases are good, there being quicker healing and no gall-bladder left to possibly make trouble by adhesions. But if for any reason a future operation should be required in such a case, it would be extremely difficult and dangerous with no gall-bladder to lead the way to the ducts. On the other hand, almost equally good immediate healing is obtained with drainage of the gall-bladder with improved methods of operating, the risk is also less, and the ultimate results are considered by some of the best operators as fully equal to

those of cholecystectomy. A compromise measure is sometimes the removal of the gall-bladder leaving the cystic duct, into which the drainage tube is fastened. A recent interesting observation has been reported from Germany in experiments on cats, showing that after the removal of the gall-bladder, but leaving the cystic duct, a new gall-bladder forms again by the dilatation of the duct, which becomes functional. If this be so, it would add some argument in favor of that operation, and to the view that the gall-bladder has sufficient function to excite nature to efforts to replace it when removed.

It would be beyond the limits of this paper to give all the arguments for and against routine removal of the gall-bladder. Cholecystectomy will be done more and more for a time at least, but we may be going too fast. Remarkably few bad results have been reported from it, but I think the next few years will tell us of fatal secondary operations where cystectomy was done primarily, and of cases of strictured common duct, due to the traumatism of tube drainage where the hepatic drainage has been done, and of more cases of pancreatic disease.

Chronic inflammatory disease of the pancreas, accompanying common duct inflammations, is quite frequent, and is much benefited by continued drainage of the bile outside for a considerable period, usually through a gall-bladder fistula. While palpating along the common duct, I have found the head of the pancreas so hard and nodular, as to simulate a mass of stones or a carcinoma. This condition may in itself obstruct the flow of bile through the common duct by compression, and in the absence of the gall-bladder, it might here become necessary to anastomose the common duct with the duodenum, a very risky procedure.

In conclusion, then, our answer to this question of dealing with the gall-bladder, as we do with the appendix, may be summed up as follows:

1st. We cannot anatomically or physiologically place the gall-bladder in the same category with the appendix. 2d. It is still too early to assert that the loss of the gall-bladder may not be a detriment to the individual, although we cannot assign any function to it, the theories of storage reservoir, flush-tank and tension-bulb all falling short. 3d. It may be held solely responsible as the starting point of gall-stone disease. 4th. Cholelithiasis, like appendicitis, cannot be cured by medical treatment, only prevented or palliated. 5th. When diseased, the gall-bladder would be

better out than in, did it not form for the surgeon a natural drainage channel to the infected bile-ducts, safe and easy of access, and to be preferred to more dangerous methods of drainage now being advocated by some surgeons. 6th. When the gall-bladder can no longer be utilized as a drainage tube, *i. e.*, when the cystic duct is closed, extirpate it. 7th. When bile is found in it, retain it and drain through it, unless gangrenous or cancerous. 8th. Gall-stones will not recur after a complete operation.

The practical application of our discussion is simply this: Cholelithiasis, like appendicitis, is a surgical disease, and, as in appendicitis, early and uncomplicated operations are devoid of risk. Patients whose gall-stones are not readily set at rest by medical and hygienic treatment should be sent to the surgeon before the outlying ducts are involved. In that stage, whether the surgeon elect to do cholecystectomy or cholecystostomy, the results will be extremely good, although in the light of our present knowledge, cholecystostomy should be the operation of choice.

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### LITHOLAPAXY IN THE OFFICE.\*

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#### REPORTS OF TWO CASES.

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In reporting two cases of litholapaxy performed in the office, I do so with the idea of emphasizing the possibilities of conservative treatment of stone in the urinary bladder, and not as anything remarkable in genito-urinary surgery.

I wish to say just a little about the comparative merits of litholapaxy and the cutting operation, as I believe many of the latter are constantly being done when the former would save the patient considerable time in convalescence, as well as the greater mortality risk of the cutting operation.

The general opinion among genito-urinary surgeons is that litholapaxy in the hands of men of

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\* Read before the Long Island Medical Society, April 5, 1904.



experience in urethral and bladder instrumentation is the operation of choice in all cases where the necessary instruments can be passed into the bladder, and there are no special contra-indications, such as encysted or adherent stone, very large or particularly hard stone, cases in which thorough drainage and rapidity of operation are the chief indications, etc.

The following opinions are quoted as examples:

R. W. Taylor<sup>1</sup>—"In practised hands it is the operation of choice for children and also for adults."

White and Martin<sup>2</sup>—"Litholapaxy is in both adults and children the method of choice."

Keyes<sup>3</sup> sums up the situation as follows: "Suprapubic lithotomy exposes the patient to more dangers and inconveniences than does litholapaxy. Yet lithotomy is appropriate to all cases, which litholapaxy is not; while litholapaxy requires a special training, which lithotomy does not."

The time lost in convalescence is a serious matter to all male patients. Several weeks at least is the shortest time we can promise our cystotomy cases, and this may extend to a longer period. Even in somewhat unfavorable cases when litholapaxy is done, the patient can frequently leave the hospital in a week. In suitable cases operated in the office there is no time lost.

There are worse things than cutting operations, but not many in the minds of the average patient and his family. On this account many will readily accept litholapaxy who would make great objection to any cutting operation. This is a somewhat important advantage for the former.

In the following statistics the marked difference in mortality will be noted:

Operations on patients ranging in age from puberty to middle age:<sup>4</sup>

	Cases.	Deaths.	Per cent
Perineal lithotomy . . . . .	226	22	9.7
Suprapubic lithotomy ..	159	18	11.3
Litholapaxy . . . . .	485	22	4.5

In old age:

Perineal lithotomy . . . . .	69	13	19
Suprapubic lithotomy ..	91	17	18
Litholapaxy . . . . .	581	40	7

The reaction following litholapaxy is usually slight, and generally the patient experiences great and immediate relief from his chief symptoms. In a few cases, particularly where all fragments

of the stone cannot be immediately removed, there is some aggravation of the symptoms.

In the two cases upon which I have operated in the office, no general or local anæsthetic was used. The lithotrite was the heavy Keyes instrument, about 26 Fr.

The Bigelow evacuating apparatus I always use. The tube in these cases was 28 Fr. Both cases were given urotropin, grains  $7\frac{1}{2}$ , well diluted, three times daily, and their bladders were washed daily with boracic acid solution, 2 per cent., followed by nitrate of silver, 1-4.000. This treatment should be commenced several days before operation, and subsequently continued until all symptoms of cystitis subside.

Chismore<sup>5</sup> performs this operation under local anæsthesia in a series of office sittings. He injects one or two fluid ounces of a 4-per-cent. solution of cocaine hydrochlorate into the bladder and leaves it there during the operation.

He has devised a very ingenious lithotrite, the male blade being hollow and attached to an evacuator which is operated as the stone is crushed, thus doing away with the repeated passing of instruments. The evacuating attachment is said to be particularly useful in drawing small fragments within the grasp of the instrument.

The dangers of cocaine poisoning, I believe, are too great to allow of its use in this operation. My patients only complained of discomfort when the bulb of the evacuator was compressed and the fluid forced into the bladder.

CASE 1—F. S.; German; theatrical carpenter; aged 54 years; referred to me by Dr. A. L. Reeve, January 2, 1904. He complained of almost constant desire to urinate, stating that he passed water every half hour during the day and every two hours at night. He also complained of severe and constant distress throughout the whole course of the urethra. He passed bloody urine once only. The searcher came in almost immediate contact with a large rough stone.

Examination of his prostate found it but slightly enlarged and soft. His bladder capacity, 250 c.c. Residual urine, 60 c.c. Ordinary rubber catheter passed easily. Litholapaxy was advised.

He was operated on January 14, 1904, in the Williamsburgh Hospital, under ether anæsthesia, and apparently all fragments were removed. No reaction followed the operation, and his improvement was marked and immediate. The second night he did not have to urinate between 11 P. M. and 6 A. M. the following morning. He had no further increased frequency in urination

until after the second operation. He left the hospital ten days after the operation.

On January 29, February 1, 3, and 24, while urinating, passed fragments of stone.

February 24 his bladder was searched and several fragments discovered.

March 3 the fragments were crushed and a fair amount removed in the office.

No immediate reaction followed, and the patient continued regularly at his work, including the day of the operation. From the third to the tenth day following his cystitis was somewhat increased. His bladder is again in good condition, although still containing some fragments of the stone, and I shall make another attempt to remove these during the present week. His bladder is washed three times weekly with boracic acid and the silver solution, and he still takes urotropin.

His general health, which was somewhat impaired, has continued to improve since the first operation. He has practically no residual urine, and his bladder capacity is 300 c.c.

CASE 2—J. D.; clerk; native of United States; aged 33 years; dispensary patient, January 15. Had the classical symptoms of stone, but never passed blood. Upon searching his bladder a small calculus was found. This was immediately crushed and entirely removed. No reaction followed and his symptoms were immediately modified.

He had only a moderate cystitis and received no preliminary treatment. After the operation his bladder was washed out with boracic acid and the silver nitrate solution daily for four days, then three times weekly for three weeks, when he was searched, and no fragments being found and his bladder symptoms having disappeared, he was discharged cured.

In performing this operation without general anesthesia, care must be exercised in selecting suitable cases. Patients with large and sensitive prostates will do better under general anesthesia. Highly nervous men, upon whom the sight of formidable instruments has a demoralizing effect, will not bear it well.

I believe with Chismore that we should not try to do too much at each sitting. Gradual fragmentation and removal of the stone, where it cannot easily be done in one operation, should satisfy the operator, and he should not be influenced from this course by the wish of the patient to have the operation completed in one sitting.

73 Orange Street.

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#### REMARKS ON MANAGEMENT OF CLUB FOOT, INCLUDING REFERENCE TO THE SO-CALLED LORENZ OPERATION FOR CLUB FOOT.\*

BY BURR BURTON MOSHER,

Surgeon in Chief, St. Giles' Hospital for Crippled Children.

Since the delightfully memorable visit of the wonderful Dr. Lorenz, much has been written and more said relative to the Lorenz operation, though a better name is "The Bloodless (?) Operation for Reduction of Congenital Dislocation of Hip," but points relative to this operation, be they good or bad, I do not offer for your discussion to-night, but in passing this interesting subject I beg to say that there seems to me even yet many unsettled and disputable opinions both as to the operation itself and the results obtained.

It will take much time before this wonderful procedure will have been dropped into its appropriate niche, there to fulfil and maintain its proper position among the future surgical operations.

As I said before, not this hip operation but another, sometimes bearing Dr. Lorenz's name, do I wish to bring up for discussion this evening, namely, called by Dr. Lorenz, the foot-modeling operation for club-foot, though I doubt if he can lay the same claim to this foot operation that he does to the hip operation, for it is not in any sense new, as it has for many years been performed under various names similar to or meaning forcible correction, by Koernig, Wolf, and many others, and as it always has it always will, in a degree at least, be a part of the successful treatment of every case of club-foot. I do not wish to be understood as advocating this operation alone as the only treatment in all cases of talipes, yet it includes the essential surgical principles that any operation for this deformity may lay claim to, be it in the massage employed in the very mild cases or in the severe operations used in the extreme cases. The idea of overcoming perverted resistance and maintaining that power is ever paramount in this form of sur-

\* Read at a meeting of the Long Island Medical Society, April 5, 1904.



gical technique. So the essential principles involved in this operation are those upheld by any successful club-foot operation, varying only in the matter of the degree of force which each individual case makes it necessary to employ.

Now, for a moment, let us superficially consider the structure and conditions in the normal and the deformed foot; then let us apply the principles of this operation and see how well or how poorly it meets the indications.

When once established, the normal proximities of the foot are maintained by ligaments, fascias, etc., while the relations are controlled by the various joints and the muscular forces transmitted through the many tendons, acting like the guy ropes to the derrick. This control is interfered with by both external and internal influences, such as faulty foot-wear and posture, or any tissue derangement that might interfere with the normal form and functional activity of the foot.

In club-foot, we have a foot existing under abnormal relation to other parts of the body, but more important is the abnormal relations of the different parts of the foot to one another, and it matters little the form or kind of talipes we always find deformity in the bones, muscles, tendons, fascia, as well as abnormal nerve and blood supply, and changed myodynamics showing a deformed sum and total, a foot with modified, perverted and limited function, and all of these abnormal conditions usually increasing.

Now the object of the treatment of talipes is to restore the form and function of the foot at the earliest possible moment, and I know of no surgical condition where it is more essential to choose the proper operation best suited to the particular case, yet surgeons very often obtain the same results by employing the different methods which they are most familiar with, but given the following conditions:

A surgeon with manual dexterity, and hand and arm strength, who is clever in the use of plaster of Paris.

A moderate degree of deformity.

Young child.

Normal club-foot resistance.

Case accessible for frequent observation and treatment.

Intelligent parents who are willing to co-operate.

A moderately long foot.

—and this foot-modeling operation is the operation *par excellant*, and when intelligently and thoroughly employed should and will yield very

satisfactory results, and give little loss of tissue and usually no scar.

The description of it, as I understand it, is something like this: By the use of the hands, and, if necessary, levers (tenotomy sometimes) and a most essential accessory, the oval-cornered triangular fulcrum, the tissues are unfolded, stretched, moulded, remodeled, torn, lacerated, etc., and when made pliable and the foot very flabby and easily over-corrected, the foot *while in an over-corrected position*, is padded with sheet wadding, etc., and plaster of Paris applied, and the sole part of the cast moulded flat like a sole of a boot (always being sure the circulation in the toes is perfect), and let this splint be worn for a long time.

An *ideal operation* for club-foot is one that renders the deformity resistless and minimizes the tendency to recurrence, and when the foot is made pliable it can be over-corrected, and it is most important to maintain the foot in its over-corrected position, having ever in mind that ceaseless tendency to recur. In plaster of Paris we have an ideal retaining splint, and it does its work as such in orthopedics in a very satisfactory manner. And in the treatment of club-foot it can be satisfactorily used in retaining the foot in its over-corrected position after surgical methods have been employed, but if plaster of Paris be expected to give results in this deformity when applied as a correcting force (other than a maintaining force), its possibilities are over-estimated and disappointment will surely follow.

When the deformity is not maintained by the plaster of Paris, an anæsthetic should be given, and the reposition of the foot repeated and again kept in the over-corrected position, and the child encouraged to walk at the earliest date. The results will, of course, be delayed from one to many years, and the number of forcible corrections necessary will be from one to many, but this over-correction must be maintained until the deformity shows no tendency to recur for one year, and then I think a cure may be claimed.

These operations of forcible correction and foot-modeling are in all cases the first to be considered, though the others, more severe, are often necessary. But if you think of these operations a few moments and compare their possibilities with the surgical indications for the cure of club-foot, I feel sure you will agree with me that this operation, "forcible correction," including the foot-modeling operation, is the usual and sufficient means for the management and cure of the ordinary cases of talipes equino varus.

## PROCEEDINGS OF SOCIETIES.

### MEDICAL SOCIETY OF THE COUNTY OF KINGS.

#### SECTION ON PEDIATRICS.

R. TAYLOR WHEELER, M.D., EDITOR.

REGULAR MEETING OF THE SECTION HELD MAY 13TH, 1904.

DR. WILLIAM A. NORTHRIDGE in the Chair.

#### TYPHOID FEVER IN CHILDREN.

BY HENRY N. READ, M.D.

Before the origin of the bacteriological and serum diagnosis of typhoid fever, much obscurity prevailed as to the existence of this disease in the very young. The features of it in adults and in young children differed so much that some observers denied the occurrence of typhoid in children under twenty months of age. This was probably due to the fact that the clinical symptoms differed so much in infants and adults, and also to the fact that the pathological findings were dissimilar. Modern research has demonstrated the existence of the *Bacillus-typhosus* to be so constant in the blood of patients suffering with typhoid fever, that it may now be fairly said that typhoid is removed from the group of infectious diseases with local manifestations, and is placed in the list of the general infections. As an authority remarks, "typhoid fever must now be regarded as a septicaemia." Knowing now what constitutes real typhoid, that it depends upon the bacillus of Eberth and not on the pathological changes found after death, we can see how obscurity existed respecting the occurrence of typhoid in infants under two years of age. The clinical symptoms of the disease differed in children and adults, while the post-mortem appearances in young children, so much resembled those of entero-colitis, and many of the wasting diseases of childhood, which are accompanied with diarrhea, that it was impossible to prove anything from them. Bonchut, Trousseau, and some of the older French clinicians were of the opinion that all continued fevers in young children that were not malarial were typhoid, *viz.*, those classed as nervous fevers, gastric fevers and continued fever, and in the light of modern research it is not improbable that they were right. At all events, we will be able by means of the bacteriological examinations to classify properly

many of the obscure low fevers of the very young. It is the opinion of the writer that typhoid fever is far more common in the young than was formerly thought, and in this view he is supported by the opinions of a large and constantly increasing number of observers. Most of the later text books on pediatrics mark the increase of this belief. Some fourteen years ago, the speaker read a paper before the Kings County Society detailing eight or nine cases of typhoid fever in the young, occurring in his practice. These cases occurred during the years 1885-86-87-88 and '89, during which time typhoid fever prevailed extensively in Brooklyn. The paper was criticized to some extent, and some were sceptical as to the correctness of the diagnosis in the cases. There was no way of proving the matter, as no post-mortem examinations were made, only one case terminating fatally, and in that no necropsy was obtained. The increasing experience since then, however, has not caused me to alter my opinion as to the correct diagnosis in those cases, and since that time I have seen quite a number of cases of fever in young children, which I believe were of the typhoid variety. The diagnosis in the last few years, of course, has been verified by the Widal reaction. A long and increasing list of cases is being constantly made public. Abt, of Chicago, reports 90 cases. Adams, of Washington (*Arch. of Ped.*, Feb. 1904), reports 337 cases of enteric fever in children, occurring in the childrens' hospital of the District of Columbia during the period from 1872 to 1903. Churchill gives a study of 47 cases, ranging from twenty-two months to twelve years. Moizard and Grenet in France, and Hayashikawa and Adler in Germany, publish a large number of cases in connection with their studies of the bacillæmia of typhoid fever. We may, therefore, very reasonably conclude that typhoid fever not only occurs in the very young, but that it occurs very frequently.

The most noticeable difference in the typhoid of adults and children may be said to be the mildness of the disease in children, and it is undoubtedly due to this fact that so many cases are overlooked in the very young. The mode of onset of typhoid in children is sudden as compared with adults. The lassitude, headache and general prodromata of the incubative period, are generally wanting in the young, and in but one case of the thirty or more that I have seen, have there been the common symptoms which usually precede the disease in grown people. In a few



cases a convulsion ushers in the disease, though this is rare. Usually the child exhibits only the ordinary phases of sickness. Fever, loss of appetite, headache, if old enough to describe symptoms, general languor and thirst. The great majority of my cases have exhibited nervous symptoms to a considerable extent; convulsions (rarely), twitchings, restlessness, mild delirium, sometimes command aberration of the special senses were present, not infrequently profound sleepiness, the patient sleeping nearly all the time. Vomiting, as an initial symptom, I have usually found to be absent. Constipation was found in by far the larger number of cases, contrary to what is usually seen in the adult. The roseolous eruption, too, was not generally present in my cases, only a few exhibiting the spots and these not extensively. Tympanitis was not generally present, though abdominal tenderness and moderate gurgling in the right iliac region was. The temperature more nearly resembled the adult temperature of typhoid fever than any other symptom of the disease, but with one important difference. It never rose so high as we usually see it in the adult. The daily variations were very similar, the exacerbations and remissions being very characteristic, but only in one of all my cases have I seen the temperature rise above  $105^{\circ}$  during the whole course of the illness. This occurred in a nursling of eight or nine months of age, who contracted the disease from its mother who nursed it while she was still sick with the fever. This child died after ten days sickness.

The duration of the fever in the majority of my cases has been under three weeks; from sixteen to eighteen days. I have had two relapses, no cases of perforation of the intestine, and no cases of peritonitis. Pneumonia occurred twice as a sequel or complication; bronchitis, as a complication in ten cases. Enlarged spleen was found in almost all cases. Enlarged lymph glands generally were noticed in all cases. Edsall, of Philadelphia, has, in a very able and instructive article on "The Behavior of the Lymph Glands in Typhoid Fever," suggested that a rapid increase of size in the glands, indicates a favorable termination of the disease. This view is in keeping with the well-known theory of the protective influence, or immunity, conferred by the lymphatic glands in the infections, especially in the young, and the behavior of the lymph glands in typhoid is well worth future study, an early increase in size indicating an early and rapid convalescence, the glands protecting the general

system to a certain extent from the ravages of the disease.

In none of my cases was there a termination of the fever by crisis. There was no abrupt fall of temperature and rapid abatement of symptoms, but a gradual improvement in all respects. Epistaxis I saw but seldom. Bowel hemorrhage occurred in several cases and this served to obscure the diagnosis. The most difficult cases to pronounce upon are those occurring in summer in very young children. Where there is occasionally bloody mucus in the stools and where, naturally, we are looking for cases of inflammatory diarrhea, owing to the heat of the weather. I have made the mistake several times, I frankly own, and have seen it made by others, of pronouncing a case at the beginning simple enteritis, which afterward turned out to be typhoid fever. In none of my cases has there been any dangerous or long continued sequel, except once, when death occurred from gangrene of the leg, owing to a congenital deformity of the thigh bone in a girl of nine years of age, who had passed safely through the fever and was convalescing, when this untoward accident happened.

**PROGNOSIS:** This is more favorable in children, of course by inference from what has been said. I have had two deaths in a little more than thirty cases. The number of infantile or children's cases which I have seen has been larger than this, but I cannot be accurate as to the details or termination of many cases which I have seen through a number of years. The percentage of deaths, therefore, as far as I can determine, has been a little more than six per cent.

**TREATMENT:** This has been mainly expectant. Keeping the fever within bounds and supporting the strength of the patient have been the main indications to meet, as they are in all cases. In all cases, cool sponging has been the means of meeting the first indication. I have never been in the habit of using the cold bath for children, as it has always been easy to reduce their temperature with the local applications. Antipyretics were seldom made use of. Alcoholic stimulants have been used in moderation, and strychnia quite generally. Grave or alarming crises have been so rare that I have never had to resort to digitalis nitroglycerine, atropia or any of the powerful drugs used at these times. The treatment of typhoid fever in general, indeed, may now be said to have arrived at that stage where the next improvement to follow will probably come through the medium of serum therapy. The inutility of drugs in the treatment of this

disease has long been recognized, and bacteriology has given us the scientific reason of what we have known clinically for a long time, that intestinal antiseptics in typhoid was a failure. The use of typhoid antitoxin has not yet been extensive enough to warrant a conclusion, though the reports of Chantemesse, Josias, Mendez and others show favorable results. Much more work in this direction will therefore be necessary, but our anticipations cannot but be sanguine. The question of the early diagnosis of typhoid fever naturally confronts us, whether the case be in the young or old, and in this connection the blood studies, or bacillæmia of the disease, as it is termed, are most interesting. A number of investigators in this field agree that in the blood culture there is a very valuable aid to the diagnosis of typhoid, and one available in the early stages, probably antedating the Widal test, but as clinicians we have only at present our wits and powers of observation to aid us in making an early diagnosis. In conclusion, I will remark that the only way to find a thing is to look for it, and that if we bear in mind constantly the fact, that typhoid fever exists extensively among young children, we shall often find cases that would otherwise pass under a different name.

#### *Discussion.*

DR. GORDEN R. HALL: I do not think I have seen many cases of typhoid fever in young children, but if the newer methods of diagnosis are demonstrating more of these cases in the very young, perhaps I have seen more than I think.

Since 1890 until the present there have been 87 cases of typhoid fever in the Brooklyn Hospital and only five have been under ten years of age. In these five cases the length of the fever ranged from nine to sixteen days and the height up to  $103^{\circ}$  in the four cases which recovered, and as high as  $105^{\circ}$  in a fatal case. I have seen several cases where a nursing mother gave her child typhoid fever. A case has been recorded where a woman eight months pregnant developed typhoid fever and at term the child's blood, the blood of the placenta and her milk gave the Widal reaction.

DR. E. H. BARTLEY: The diazo-reaction is about as accurate as the Widal test, but it is found in many other diseases, such as measles, general miliary tuberculosis, tubercular meningitis, etc. I do not agree with Dr. Read that intestinal antiseptics is a failure, because I think the giving of antiseptics tends to prevent or hold in check the accompanying abnormal fermentation

in the bowel, although, of course, it has no effect on the general infection of the typhoid fever itself.

DR. W. M. HUTCHINSON: In the past, in mild typhoid cases in nursing mothers, I have allowed the child to nurse from the mother with apparently no bad effects to the child or mother.

DR. H. N. READ: The diazo-reaction in my opinion, is by itself useless. In conjunction with the Widal test and other diagnostic methods, it is of some value. Intestinal antiseptics, I contend, are not of much use in themselves. For some special symptom they may be of use, but given in any amount, for any length of time, they only do harm.

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### THE BROOKLYN GYNECOLOGICAL SOCIETY.

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STATED MEETING, APRIL 1, 1904.

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H. C. KEENAN, M.D., Editor.

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The President W. E. BUTLER, M.D., in the Chair.

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PAPER: THE UTERUS AND OVARY OF THE NEURASTHENIC.

BY R. L. DICKINSON, M.D.

#### *Discussion.*

DR. J. O. POLAK: I wish to thank Dr. Dickinson for presenting this subject in such a fair-minded manner. I think his conclusions are those most of us have come to. Certainly his last statement, that operations on the neurasthenic should be avoided, is one that perhaps we do not need to preach to ourselves, so much as we do to the general practitioner. I think few of us go through a week without having some neurasthenic referred to us with a minor pelvic lesion, which has been made the focus of this woman's ills, and all of us, possibly in our earlier experiences, have yielded to the desire of operation or to the claims of the patient, and have seen these women go from bad to worse, either in our hands, or subsequently fall into the hands of others.

I think that the work of Skene and Shaw among the insane bears an important relation to the work Dr. Dickinson has brought to our attention to-night, and if I remember their con-



clusions, were about the same as those we have heard this evening *i. e.*, that where there were gross lesions the insane woman should have the benefit of operation, the same as her sane sister, but where there was no gross lesion, it was more harmful to operate than not to do so. Certainly, my experience has been in accord with this teaching. I have seen so many failures from operations where we have anatomical cures, that I feel that we should give these patients treatment for their general rather than their local condition. The Doctor has mentioned reflex irritations. These have come up constantly in my work, particularly bladder and rectal conditions accompanying these cases. Irritable bladder is particularly common in neurasthenics. We may make cystoscopic examination of these women and find absolutely nothing about their bladder to cause the intense irritation from which they suffer. I have a patient now that was operated on for a retroversion and a chronic ovaritis of the microcystic variety five years ago. Prior to that time she had had all of the classical symptoms that are supposed to go with retroversion in conjunction with a pronounced degree of neurasthenia. The bladder irritation was intense. She had an anatomical cure, her uterus has remained in a good position and is freely movable. One ovary was removed, the other was perfectly normal. She made an uninterrupted convalescence, but her neurasthenia continued.

The bladder condition has become very annoying. She has seen such men as Dudley, Boldt and Kelly, all of whom have made cystoscopic examinations on her, besides the ones I have made on her repeatedly, and none of us have been able to find any lesion in the bladder. She is unable to hold her urine for longer than fifteen or twenty minutes, and yet she can go to bed and not have to urinate all night, but if any one is talking to her, even while she is lying in bed, or should she be unable to sleep, she will have to excuse herself and go to the toilet to urinate. She is only an instance of the intense irritability of these neurasthenics.

Obliterating the canal of a sclerosed uterus and by the use of steam, versus hysterectomy, is a question of considerable interest, and it is one that hardly can be settled by a single statement at the present time. A number of these women have not passed the menopause, and it is a question whether it is advisable to close up such a uterus and leave *in situ*. Of the few cases I have seen, there is only one in which I have been able to obliterate the cavity of the uterus com-

pletely, and her symptoms have not improved materially, so far as the neurasthenic side is concerned. That she has stopped flowing is the only result I can claim for it.

The application of steam to the interior of the uterus is not without danger and is extremely difficult to apply properly with the apparatus we have at hand. To generate sufficient steam for a length of time that is necessary to obliterate the cavity is also a difficult procedure. Personally I should feel that these cases where there is a sclerosis are better hysterectomized than closed by steam.

In a hysterectomy we have a severe operation which is attended with a certain mortality, no matter by whom the operation is performed. While with steam we do not have that degree of mortality, we have a resulting morbidity, which is not inconsiderable, which must be taken into consideration. Steam that is effective and used long enough to obliterate the cavity may extend further than we would desire it to, leaving our patient more or less maimed.

There is one other point in the Doctor's paper that deserves consideration. He said 65 per cent. of the worst type of neurasthenics were masturbators. The Doctor's experience in this regard has always interested me, because I cannot find the percentage of masturbators the Doctor speaks of in my clientele, and it is interesting to know whether we are really wronging these women or they are wronging themselves by not letting us know whether they are masturbators or not. These evidences the Doctor speaks of in regard to the labia minora and the changes in the clitoris, etc., are points that I have not been able, to my own satisfaction, to demonstrate to the degree the Doctor has in his previous efforts in this direction and also in the paper of this evening.

DR. H. C. KEENAN: I was very glad to hear the Doctor bring out the point about morbidity and anatomical cures. This is a step in the right direction. I think that now more and more we are beginning to see that the mere production of an anatomical cure in a patient does not relieve all the symptoms, and that the cause of a great many of these morbid symptoms following operation with an anatomical cure, is entirely due to the fact that they are suffering either from hysteria or neurasthenia.

In the treatment of these cases of neurasthenia, it is necessary to distinguish clearly between those cases that are simply coincident with the pelvic trouble, and those which are practically

dependent upon the pelvic trouble. In certain patients I think it is very easy to trace the casual relationship between a metrorrhagia, for instance, and a neurasthenic condition, or between continued pelvic pain either due to ovaritis and a neurasthenic condition.

After the operation, however, these patients may not be cured, because the habit of pain has been established. The inflamed ovary or tube has been sending up impulses to the cord continually, and after the lesion has been removed, still the patient feels the pain. Probably a certain amount of inflammatory reaction has been established. Lomer, in an article some years ago, I think in the *Obstetrical Journal*, brings out another point bearing on this subject. He says that the nerves from the pelvic organs or from any of the internal organs going up to the cord go to the same segments as the nerve which supplies the skin over that part, so that very frequently, after a continued painful lesion in the pelvis, the nerves of the skin become irritated, and that the patients feel pain in the skin, so that pain can be elicited in the skin by simply pinching it—the patient feeling the pain internally.

If we make a bimanual examination, of course we press on these nerves and produce pain. So, after operation, we may still have the patient complain of this pain in the pelvis, whereas the pain is simply in the skin. This point, I think, is particularly noticeable in neurasthenic and hysterical patients, and it is a condition for which a number of operations have been done. The physician making the examination has elicited a great tenderness in the pelvis, and has been led to diagnose the case as some ovarian trouble or some tubal trouble, when in reality the trouble is all in the skin and due to an impulse sent from the cord.

Likewise, it is necessary to distinguish between neurasthenic and hysterical cases. I think that probably Dr. Polak's bladder case may belong to the latter class. It is an exceedingly difficult thing to distinguish between a mild case of hysteria and a fairly severe case of neurasthenia. The patients complain of a large number of symptoms—operations or treatments may be undertaken repeatedly for them and there is no cure.

I agree with the Doctor that the general condition should be thoroughly looked after, and I think that most of these patients should be thoroughly examined for the hysterical stigmata. They will usually show them in anesthesia of

certain parts of the body—in the eye or breast, and in hyperæsthetic areas in other parts of the body.

DR. G. McNAUGHTON: I think every member of the Society feels under obligations to Dr. Dickinson for bringing up this matter, and it is certainly the most important matter we have to consider. I think it is unfortunate that the experience of men, who have had large opportunities for observation, such as Dr. Dickinson has had, cannot be passed to others. The fact of the matter remains, that the young gynecologist commences where Dr. Dickinson did, and he learns from his experience as Dr. Dickinson has acquired his. After fifteen or twenty years he finds he has made some mistakes, and that he can more clearly distinguish these cases, and he can promise cure or no cure, or partial cure, based on his experience.

There has been something said in regard to the general practitioner. I am inclined to think that the average general practitioner is not apt to do that, that he is very careful about these cases: that he does not recommend operation very readily, not until he has tried every means in his power, and then he refers them to the specialist. Frequently we have patients referred to us that we cannot consistently recommend anything in the way of an operation, because we cannot find the gross lesions that would justify it.

The Doctor spoke of the cutaneous nerves. We have an example in the case of pain, for instance, in supraorbital neuralgia from a tooth, manifesting itself in that branch of the nerve. Surely the proper attention to the teeth, which is the cause of the neuralgia, is the proper treatment in that case, and in the case the Doctor speaks of, if you have an ovaritis, the proper treatment would be the treatment of that condition. You would not think for a moment that a person suffering from some muscular inequality in the eye should not receive glasses because they are neurasthenic. They ought to have these glasses fitted, and the same if a neurasthenic woman has a pelvic lesion, it seems to me she is entitled to relief of that factor in her distress, and it is a distress in most cases. If you can find a gross lesion, then she is entitled to an operation.

In regard to neurasthenia and hysteria, at the present time most advanced neurologists claim that all cases of hysteria are neurasthenic, and that is another point that the hysterical women are entitled to some relief. I believe that the insane woman and neurasthenic or hysterical



woman that has a gross lesion, which is a factor in causing her nervous condition, is entitled to such relief as we can give.

DR. W. P. POOLE: It is notable in this class of cases, aggravated neurasthenics, both in men and in women, that their worst symptoms are very often referred to the organs of generation, even when no definite disease can be found in the pelvis. And we are thus led to the belief that there is in all these cases a considerable mental element. But while this is undoubtedly true, I think that we are often inclined to dismiss such patients as hypochondriacs, when their troubles are not entirely imaginary. In the large majority of cases I believe there is present some physical, anatomical lesion. This may not be located primarily in the pelvis, it may not be in the pelvis at all, but it is to be found somewhere within the human economy if we look far enough for it.

Dr. Dickinson touched upon a point which has always appealed to me as being a frequent cause of the neurasthenic condition, and those indefinite ailments which seem to take their rise from the pelvis: enteroptosis, as it is found in that class of women who are ill nourished, flabby, anæmic, and with flaccid abdominal walls. A downward displacement of the abdominal viscera causes pressure upon the organs of the pelvis, bringing about a prolapse and congestion of the ovaries, retroversion of the uterus, with disturbance of its circulation, and consequent endometritis. Under such conditions, treatment directed to the pelvis alone is, of course, of no value, or, at least, of no permanent benefit. The same is true in the presence of other complications. Pelvic treatment, whether palliative or radical, is of little avail, even when we can determine some local lesion, which, under ordinary circumstances, would yield to treatment, unless it be combined with measures for removing the primary cause, and improving the general health of the patient.

DR. S. J. McNAMARA: Dr. McNaughton has told us that these patients are entitled to have something done, but he has not told us what is to be done. No doubt they are entitled to and get a good deal of attention from gynecologists, as well as neurologists. A certain class of them can be benefited by the method of Weir Mitchell, that is rest and forced nutrition, that is the class that presents no gross pelvic lesion.

As Dr. Dickinson has told us, the majority of them are of spare build, with thin abdominal walls that facilitate thorough examination. That class of patients will usually be benefited by the rest treatment, with forced nutrition of large

quantities of eggs and milk. I have had a slight experience with these cases, and they have improved and gained very materially in weight and their general neurasthenic conditions have much improved.

DR. R. L. DICKINSON: I thank you for your cordial reception of this study. I should say that in starting it I had little idea of the darkness of the outlook as a whole, or of the discouraging results that such a summary of a large number of cases would develop. I had seen these cases improve temporarily and a few improve permanently; but I had not seen from the removal of very gross lesions the amount of improvement that we would see in all other cases. When this habit of the nervous system is well established, whether it be a chronic arterio-sclerosis in most instances, or whether it is a permanent change in the neuron, I do feel that this study has taught me, that though I have been wary of promising anything from operation in the past, in the future I shall be far more wary.

Regarding the hypertrophies about the vulva, I presented some 400 cases. In that long list a sufficient number of patients, with very pronounced hypertrophies of the labia minora, frankly admitted the cause. There is a very intimate connection between neurotic and erotic conditions, between chronic irritability of the lumbar spine, that goes with all neurasthenia and genital excitability. I think the two are more or less inextricably interwoven. Whatever statements I make in this matter are made with the greatest reserve and caution.

In regard to steaming the uterus. For the cases in which you would have otherwise to take out the uterus as in incurable menorrhagia, not due to fibroid or cancer, one would better offer steaming of the uterus first, for we can steam without danger to life, and thus put the endometrium out of business.

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## THE BROOKLYN SURGICAL SOCIETY.

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REGULAR MEETING, MARCH 3, 1904.

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The President, W. F. Campbell, M.D., in the Chair.

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CÆSAREAN SECTION: RECOVERY OF MOTHER AND CHILD.

DR. W. B. BRINSMADE reported the case of L. M., age 22, who had been delivered in 1900 and in 1901 by craniotomy on a living child. Both

times the speaker was called to see her after labor had gone on for some time, and the mother was exhausted to a degree that, in his judgment, precluded Cæsarean section. Her conjugate diameter measured two and one-half inches, and in both cases the child was large. The patient had her condition explained to her, and was warned against becoming pregnant for a third time. Notwithstanding advice, she again became pregnant and presented herself to him in January, 1902, then four months advanced in uterogestation.

The condition of affairs was explained to her. Dr. Brinsmade refused to destroy another child, and advised her to wait her time and submit to operative measures. She consented to this plan. On June 27th, her full term being nearly completed, labor not having begun, and at a time of day convenient for himself and those interested in the case, he delivered her by Cæsarean section of a child weighing 6 lb. 4 oz.

General preparations were made as for any abdominal section. As soon as anesthesia was established the cervix was dilated so as to admit three fingers. An incision was made from above the umbilicus to the symphysis, the uterus brought up into the wound, incised, and the child extracted. Dr. Rankin, his assistant, seized the uterus, bringing it more and more out of the wound as the child was extracted, and succeeded in emptying all the liquor amnii outside of the abdominal cavity. The placenta was then peeled rapidly from its site and delivered. Dr. Rankin controlled the hemorrhage from the uterus by squeezing it tightly, while two layers of sutures of catgut and chromic catgut were being applied to the wound in the uterus. The wound in the abdominal wall was closed after his usual method, leaving a scar that is now scarcely perceptible. The abdominal wall is strong. The mother and child have both done well continuously from the day of birth.

The special points in this case to which Dr. Brinsmade wished to call attention are: 1st, the unquestioned indications for operation; 2d, choosing a time before labor had commenced when all preparations could be carefully made and the convenience of the surgeon suited; 3d, the dilating of the cervix for drainage before opening the abdomen; 4th, the method of lifting the uterus from the wound so as to pour the contents outside the abdomen.

#### ANOMALIES OF THE RENAL ARTERIES.

DR. W. B. BRINSMADE said that the blood supply of the kidneys comes through the renal

arteries, which leave the sides of the aorta at right angles and just before entering the hilum of the kidney divide into four or five branches and are then subdivided for distribution.

In his work on the cadaver, he had seen so many irregularities of the renal artery that it seemed worth while to call attention to them. Sometimes one artery will enter the cortical substance at the upper or lower pole, sometimes at both poles, sometimes one renal artery divides within a short distance of the aorta in its four or five branches. Once he had seen both renals arise from a common stem from the front of the aorta. Multiple arteries may arise from the aorta, suprarenal, lumbar or from the iliacs. Renal arteries may enter the kidney on either surface or either extremity.

In the specimen which he presented, three renal arteries left the sides of the aorta to enter the hilum of the kidneys. The branches were so far separated as to have caused failure had any one attempted to seize them all in one grasp of a clamp.

As surgical interference on diseased kidneys is coming more and more to be recognized as a life saving measure, he said that our technique in nephrectomy should consider always the possibility of these anomalies.

#### FIBRO-ADENOMA OF THE MALE BREAST.

DR. F. W. WUNDERLICH reported the case of a man, aged 29, who had consulted him in June, 1902, for a tumor in the right mammary gland. The right breast had been larger than the left as long as he could remember, but within a week or two it had increased in size. A small tumor was present in the outer half of the gland. It was not adherent to the skin or to the deeper structures, and was freely movable in every direction. He had no pain in it and there was no tenderness on pressure. At times the friction of the clothing against the tumor caused some discomfort. The speaker saw him again on June 22 and July 13 of the same year. No change in the tumor, or in the symptoms, was noticeable, and Dr. Wunderlich advised him not to have anything done at that time, but to report immediately if pain should supervene, or the tumor become larger.

On January 29, 1904, the patient presented himself again. The tumor had increased in size, and was painful on pressure. On February 6 he was admitted to St. Peter's Hospital, and on the same day the right mamma with the tumor was excised. The tumor proved to be larger



and extended further toward the axilla than was surmised from the external examination. The hemorrhage was quite free, considering the size of the tumor. After the hemorrhage had been checked, the wound cleaned and all coagula removed, the wound was closed with a continuous black silk suture. A good recovery followed.

A point of interest in connection with this case is, that at the time of the birth of this young man, the right mammary gland was larger than the left, and for a week or longer the breast secreted a fluid resembling cholostrum, accompanied with swelling, redness and pain. Microscopical examination proved the tumor to be a fibro-adenoma.

#### UTERINE FIBROID—HYSTERO-MYOMECTOMY.

DR. F. W. WUNDERLICH reported the case of a woman (single), who had been suffering with profuse menstruation for a number of years, but had been free from pain until about eight years ago, when she began to suffer with severe pain at the menstrual periods. During the latter part of December, 1900, she noticed a tumor protruding from the vulva. She entered the City Hospital at Hartford, Conn., and the tumor was removed by operation January 3, 1901. Her recovery was prompt, and she left the hospital January 16, 1901.

She remained free from hemorrhages until during the summer months of 1902, when the menstrual flow became more profuse and she commenced to have irregular hemorrhages, which debilitated her very much.

She entered the City Hospital at Hartford again, in November, 1902, and her uterus was curetted. Curettage did not benefit her appreciably. The menstruation was not only excessive in quantity, but also of longer duration, and after a time became more frequent, leaving the patient prostrated from excessive loss of blood. She left the hospital at Hartford and came to Brooklyn to live.

November 26, 1903, Dr. Wunderlich was called to attend her. He found her very weak from loss of blood, with profound anemia, the skin was pale, of a waxy yellow hue, and the mucous surfaces were blanched. Pulse was 90 and very feeble. She complained of distress over the cardiac region, of headache and nausea. She had no desire for food. On palpation a hard tumor could be felt in connection with the uterus. At that time she had no hemorrhage.

On December 5 she began to flow, but the hemorrhage was slight. On December 11 she

entered St. Peter's Hospital. The hemorrhage ceased and she was given iron. Her condition improved steadily.

January 27, 1904. Abdominal hystero-myomectomy. Kelly's method. Patient lost very little blood, and rallied satisfactorily. Evening, temperature 99, pulse 96. The pulse rate never went above 90 after this and she made an uneventful recovery.

The patient is doing well, and gaining steadily in strength. The tumor showed signs of degenerative changes and the endometrium looked suspicious, but the pathologist reported absence of any malignant growth.

#### PISTOL SHOT WOUND OF ABDOMEN.

DR. WALTER M. FRIEND reported the case of a young man, aged 17, who entered St. Peter's Hospital in the service of Dr. J. D. Rushmore, about 10.30 P. M., Feb. 13, 1904, with a wound of the abdomen, inflicted by a .32-calibre revolver bullet. He was otherwise healthy and strong. He suffered but little pain, was restless and had vomited two or three times. His color was natural, pulse not quick. A bullet wound was found on the left side of the abdomen, about two inches above the highest point of the iliac crest. Dr. Friend saw him one hour after the accident. He could not introduce a probe into the abdominal cavity without much force so he did not do so. The patient's general condition did not then appear to be at all serious, at least he did not appear like one suffering from internal hemorrhage, so that the speaker's best judgment was to leave him alone. Early the next morning, about 5 o'clock, his vomiting became more excessive, and his pulse was found to be rapid and small, about 130. At 8 o'clock he complained of a good deal of abdominal pain. He had vomited several times. His pulse was still rapid and his color paler.

Accordingly, a little after 10 A. M., with patient under ether, an incision was made into the abdominal cavity, vertically over the bullet wound. The amount of dark blood found in the abdomen was so great that it was evident the hemorrhage must be from some large vessel. The source of hemorrhage could not be found through the incision made, so a median incision was made and the intestines taken out of the abdominal cavity. In this way were found seven perforations of the intestines and wounds of the mesentery in two or three places, but, as it was not possible to examine the large vessels of the pelvis and abdomen in this way, the two incisions

already made were joined by another made across the abdominal wall. In this way the whole inner surface of pelvis and abdominal cavity could be seen. But in spite of this extensive exposure no large bleeding vessel was found. It was therefore concluded that the serious symptoms must have been due to the wounds of intestine and mesentery. The perforations and mesenteric wounds were closed by Lembert sutures, and the abdominal wounds closed in the usual way. The operation lasted more than two hours, during the last quarter hour of which, and in spite of hypodermic injections of strychnia, the patient was pulseless. After the operation, when saline rectal injections had been given, and the shock of the operation had abated, the pulse beat returned, the patient returned to consciousness and was able to take nourishment. Later, however, he became weaker, and with symptoms of peritonitis becoming more severe, he finally died the following afternoon, about twenty-eight hours after the operation.

On post-mortem examination the bullet was found on the opposite side of the body from the point of entrance, lying in the right iliac fossa, about one inch below the crest posteriorly, partially flattened, lying directly on the bone, which was slightly fractured at this point. There was an extensive blood clot in the substance of the right ilio-psoas muscle. The bleeding seemed to have been more extensive here than in any other place, and yet even on post-mortem examination no place of entrance of the bullet into this muscle could be found. The only way that the bullet was found was by stripping off the inner pelvic lining of this muscle.

The principal points of interest in this case are:

1st. The comparatively slight symptoms one hour after so serious a wound.

2d. The small size of wound left after penetration of so large a bullet, so much so that it was very difficult to introduce a probe into the abdominal cavity through the first wound of entrance and also to see the path of entrance into the right ilio-psoas muscle.

3d. The great length of time it takes to find and suture intestinal perforations.

4th. That the patient rallied at all after such a prolonged and extensive operation. It seems, however, that the use of saline solution, which was used extensively in this case, both in the abdominal cavity and per rectum were very valuable in restoring circulation.

5th. That the patient lived twenty-eight hours after the operation.

6th. The curious course the bullet took, as shown by the post-mortem examination.

### *Discussion.*

DR. W. B. BRINSMADE said that he supposed that all who have been much concerned with ambulance surgery in hospitals had had to do with these gunshot wounds of the abdomen. He had some strong convictions, resulting from his own personal experience, and the first is this: If a man is shot in the abdomen by a bullet, which has been exploded from a weapon anywhere within a near radius, the chances are 99 in 100 that this bullet had gone inside; and the second conviction is that it has caused damage to some of the tissues inside. Therefore, he would say that every gunshot wound of the abdomen should be the subject of a laparotomy—at least exploratory.

Another conviction resulting from his experience is, that a probe passed into muscles—into any tissue that has intersecting fibres in it—will not penetrate very far. If it does, it is because it is pushed through the muscles themselves and not through the track of the bullet wound.

The third conviction is this, and this point was demonstrated to him first by Dr. Delatour, and he had seen it proved in a number of instances since, that if a man has suffered a gunshot or a stab wound, involving the intestine, just as soon as the peristaltic action of the intestine takes place in the neighborhood of that wound, he will have a cramp-like pain. He had never seen that point mentioned in any of the text books, but Dr. Delatour had mentioned it here, and he had seen it demonstrated in every case of stab or gunshot wound involving the intestine.

In regard to these wounds, he said that it was his conviction, although he was open to correction on this point, that it is much better to open the abdomen in the median line and look for your wounds inside, than it is to try to follow down the course of the bullet. The belly wall is thin, and most of these wounds take place from a weapon exploded within a few feet of the man who is hit, and they all go through.

DR. M. FIGUEIRA said, in regard to opening the abdomen in cases of gunshot wounds of the abdomen, he thought that the advice given by Bull some years ago is the best, that is, to follow the track down and see whether it goes through the peritoneum or not. It can be easily done. When there is damage done by following the track of the wound down, you soon find out



whether it went into the peritoneal cavity or not, because there are cases on record in which a bullet has gone clean around the abdomen without penetrating. The bullet has been deviated by the planes of the muscles and the muscular action, and it has gone around into the muscles of the back without penetrating the abdomen, or has gone across between the muscles and not penetrated the abdominal cavity, so that it does not follow because a man has a gunshot wound of the abdomen, that it penetrates, especially when he has no symptoms.

As far as opening in the median line is concerned, it depends on the situation of the wound. If the wound is from the front and close to the median line, it is a proper thing to do, to open the abdomen in the line of the bullet, because the chances are that the first impact of the bullet is close to the point of entrance.

As to the treatment of wounds in the abdominal cavity, after once the abdomen is opened, after the surgeon once puts his hand in the abdomen, he must follow out the path of the bullet whether it takes one, two or three hours.

DR. C. P. GILDERSLEEVE said that he could not quite agree with Dr. Brinsmade if he would make it a uniform rule, regardless of the signs and symptoms and surroundings of his patient, to do a laparotomy. The speaker had seen a good many cases of gunshot wounds recover without operation. He saw many cases after the Spanish War where they certainly penetrated the peritoneal cavity and had gone through it and the wounds were healed when they arrived at the hospital. He did not believe in making it a uniform rule to open the abdomen regardless of the size of the bullet and the condition of the patient. For instance, he saw a case within a year in the country. A small boy was shot with a .32-caliber bullet and the family doctor told the parents that an operation had to be performed before Dr. Gildersleeve met him. He said the boy was all right at that time and had no pain or temperature. This accident happened 48 hours previously. When Dr. Gildersleeve arrived, he found the doctor had inserted a small piece of gauze in the wound and was anxious to show him the course of the bullet, by means of a director passed into the wound, and in trying to trace the course of the bullet, he succeeded in pushing the gauze into the peritoneal cavity, and then they operated. The reporter said that he hunted around for half an hour for the bullet wound. There was no sign of hemorrhage, nor any other sign of injury in the abdominal

cavity, but as he was about to give up the operation, he felt a little kernel, about the size of a small bean lodged in the great omentum, which proved to be the bullet and he removed it. The boy recovered, but he ran more risk from the laparotomy performed under those circumstances and surroundings than he did from the bullet.

Therefore, he did not believe it wise to make a uniform rule to open the peritoneal cavity every time a person is shot. He thought it wiser to be governed by the signs and symptoms and surroundings. A foreign body will either do nothing, or will start a train of symptoms very soon, which will indicate an operation. Assuming a fleshy person is shot by a person directly in front of him, the inference is that the bullet went directly in. In such a case the speaker thought it better to operate at the site of entrance. While he believed that in most cases of gunshot wounds it is best to operate, there are other cases in which it is best not to operate.

DR. A. T. BRISTOW did not think it is fair to compare the injuries made by the high power and very low calibre bullet in the Spanish War with injuries in private practice. We all know, as the result of observation of the wounds received by soldiers in that war, that it was quite possible for the high power projectiles to penetrate the abdominal cavity without injuring the intestines. That was also the experience in the South African War; but in civil practice we have not to do with injuries like that. As a rule the gunshot wounds from which patients suffer are made by a pistol of a calibre from .32 to .38, a low power arm with black powder.

He entirely agreed with Dr. Brinsmade as to the desirability of exploring these wounds and as to the undesirability of exploring with a probe. It tells you nothing. The only way to explore is with a knife.

There is an advantage, he said, in many cases in opening through the median line, and for this reason: It by no means follows that because a patient has been shot from in front that the track of the bullet was not oblique. If the track of the bullet is oblique, it is evident that the intestines on different sides of the abdomen would be injured, and if the surgeon opens only over the site of the bullet, assuming it entered on the right side, he may have to deal with wounded viscera on the extreme left. He could not explore as well with a lateral wound as with a median one. This speaker said that he had sometimes done both. A great deal depends on the location of the wound. A wound very far over toward the

side might perhaps best be explored through the track of the ball. On the other hand, if closer to the median line much time would be gained by opening in the median line and not over the track of the ball.

It is evident in Dr. Gildersleeve's case, which he quotes as a reason for noninterference, that it was wise to interfere, for if it was possible to push gauze into the abdomen, there was a penetrating wound of the abdominal cavity, and without exploration it would be impossible to tell whether any of the viscera were injured or not until the peritonitis resulting from abdominal infection hammered through the head of the hesitating surgeon that it was time to do something.

He believed it is granted among surgeons in civil practice, that the best surgery is to explore a bullet wound of the abdomen with the knife, and find out just exactly what the conditions are. It does not follow because it is bad surgery to do a laparotomy in a field hospital without nurses, with the necessity for a long and tiresome journey afterward to the base hospital, that in civil practice, with the hospital right at hand and every appliance of modern surgery to assist us, we should pursue the same policy of noninterference.

DR. W. B. BRINSMADE said that he would gladly allow Dr. Figueira the better of the argument if one has a gunshot wound anywhere near the median line. He felt strongly on the subject for this reason. A few months ago he had a case of gunshot wound of the abdomen on the left side. He cut down on the track of the bullet, and found four wounds in the small intestine and one in the colon and sutured them. He thought he had done his duty and put the patient back to bed. In the course of time he died and an autopsy was made. The bullet had penetrated the pylorus and the contents were leaking out at the time of the autopsy. The bullet had gone through and penetrated the liver. If he had opened in the median line, he probably could not say that he would have saved the man, but he would have found and sutured the wounds in the pylorus and in the intestine.

#### TUMOR OF THE BREAST.

DR. WALTER M. FRIEND reported the case of a woman, who in September, 1903, consulted him for neuralgic pain in her right breast. This pain had troubled her more or less all the summer. Otherwise she had enjoyed good health, in fact her general health had improved the past two years. The breast was not sensitive when

touched, nor was there any unnatural thickness or hardness to be felt in the breast itself. A local application, containing menthol, relieved the pain for some time. Within the last three weeks she returned, saying the pain in the breast had returned, was worse than before and that the breast was particularly painful in a thickened mass of tissue on the inner and upper portion. She thought this mass had increased in size the last three months since she had first noticed it. A thickened mass of tissue the size of a walnut, deep down in the breast at the place indicated, could be felt. This lump was very sensitive, had a firm consistence, but was not especially hard. The patient said she had had a slight discharge of blood through the nipple. Patient was 34 years old, married, had three children. There were no lumps anywhere else. The mass was freely movable, no enlarged glands to be felt anywhere. She was anxious to know whether it was cancer, and if so to have it removed. She stated she had received a blow on this breast some years ago, and that twelve years ago she had been treated for some inflammation in the same breast while nursing her child. The reporter told her that the wisest thing for her to do was to have the mass and probably the whole breast removed. She went to another doctor, who told her there was a lump there, but it was not cancer, was not necessary to operate, at any rate, to wait a month to see if it would not disappear with support and the use of an ointment, which he prescribed. The thickened mass in this breast may probably be inflammatory tissue, but with the above symptoms one cannot be sure there is not an element of malignancy with it. If one waits until the mass grows, becomes harder, and enlarged glands, and retraction of nipple develops, the diagnosis of malignant disease is made positive, and there would be no question about operation, but one cannot be certain as to how far infection has gone, so that a very extensive operation would have to be done. It seemed to the speaker that with all our present knowledge of the facts, that in the large majority of cases of malignant growth, gland infection has taken place to an extent beyond that which can be demonstrated prior to operation; also, that very often what seems at first benign, after operation proves to be malignant growth. It is good surgery in all cases to advise the removal of any growth in the breast which is painful and which on careful observation does not disappear, or which increases in size no matter how little. In other words, the patient takes far less risk in



losing a part or the whole of her breast than in allowing a growth to remain, which may be or may soon become malignant.

#### TETANUS CURED BY THE SPINAL INJECTION OF ANTI-TETANIC SERUM.

DR. W. F. CAMPBELL reported the case of a boy of 11 years, admitted to the Bushwick Central Hospital on February 9th, with well marked symptoms of tetanus, and presenting the following history:

On January 25th he fell in an open lot and cut his right knee on a piece of tin. The wound was immediately antisepticated, sutured and dressed; no symptoms presented themselves until February 4th, eight days after the primary wound, when the patient first complained of pain across his back and shoulders. Two days later at breakfast, he complained of stiffness of the jaws, and difficulty in eating, and upon the evening of the same day, while trying to eat his supper, he had a muscular convulsion, which lasted for one-half minute, throwing his head backward. On the following day, these convulsive movements continued and the head was held far back by the rigid muscles of the neck. He was brought into the Bushwick Hospital, thirteen days after the primary infection. Dr. Clark had asked the speaker to see the patient in consultation. They decided to treat the case with anti-tetanic serum, injected into the subarachnoid space by lumbar puncture. Accordingly, the puncture was made in the fourth lumbar interspace and a quantity of cerebrospinal fluid allowed to drain away, after which 20 cc. of anti-tetanic serum were injected. There were no special symptoms noted after this injection, save that there was some clonic exacerbations in the muscular rigidity, as many as three occurring in five minutes. They, however, were not of a violent character. On the following day another injection of 20 cc. was made, and toward the latter part of the day it was noted that the muscular rigidity was not so marked. On the following day the patient seemed very much better, and no convulsions were noted.

On February 13th the third injection of 20 cc. was given, following which there was a good deal of restlessness and some delirium, afterward followed by sleep, which lasted for four hours. After this there was a gradual subsidence of muscular rigidity and a gradual improvement in the condition of the patient until the present time, when absolute recovery has been attained.

When the patient came into the hospital there was rigidity of most of the muscles of the body. This was well marked about the muscles of the neck and jaw, also the muscles of the abdomen, back, upper and lower extremities, so that when the patient was lifted up from the back the rest of the body was held in a perfectly rigid condition, as if the patient had no joints. It is well to know that there was not a great deal of reflex irritability; the patient was able to swallow with difficulty, but this did not produce reflex spasm. The bladder and bowels were emptied without producing any reflex convulsions.

The period of incubation was longer than usual—eight days—and at once gave a favorable aspect to the case.

The method of injecting the anti-tetanic serum by lumbar puncture seems the most rational and practical means of placing the serum where it will come in close contact with the brain and spinal cord. As has been demonstrated, the havoc wrought by the tetanus bacillus is in the elaboration of its toxins, which have a selected action upon the brain and spinal cord; it seems necessary, therefore, to have the serum come in close contact with the structures, and lumbar puncture is to be preferred to a trephining, because of its simplicity, and it must ultimately accomplish the same purpose.

#### *Discussion.*

DR. C. H. GOODRICH said that it seemed to him that Dr. Campbell had belittled the result in this case and the importance of it, and that he had accomplished a signal victory. In the fatality of cases of tetanus, the dividing line in incubation, in most cases reported, is the tenth day. A majority of the cases that develop from the eleventh day on recover under the old-time treatment of sedatives, bromides, chloral, morphine, etc.

Anti-tetanic serum, whether used by subcutaneous injection, or, following trephine, injected under the membrane into the brain substance, or whether it is introduced into the subarachnoid space in the spinal cord, the results have been striking, because more acute cases have recovered than under the old-time treatment.

In a study which the speaker had made some years ago, when the anti-tetanic serum was first employed, the one striking result that he discovered was, that many early cases recovered under its use. Any case with an incubation less than eleven days that recovers is an indication that the measures used have been strikingly suc-

cessful, for in a compilation of some 130 odd cases made at the time, he found only four or five of these cases that were treated by sedatives were cases where the incubation was less than ten days, whereas the majority of cases that recovered under the use of the anti-tetanic serum were patients in whom the onset took place in less than ten days.

It seemed to him, notwithstanding the fact that the reflex irritability, in this case reported, was not great, that an important result was obtained and it was an encouragement to use promptly and freely the anti-tetanic serum. Dr. Goodrich had seen a case where it was used subcutaneously, and the patient died in a convulsion fifteen minutes later. He did not believe the result was due to the serum.

He expressed himself as a believer in the value of anti-tetanic serum, and should use it in every case. It seemed to him that the injection in close contact with the nerve centres and nerve tissues in the spinal cord and brain is the most reasonable.

DR. M. FIGUEIRA fully agreed with what was said, that some chronic cases of this class will get well, and the acute cases will die—serum or no serum. He wished to speak especially of the method of injecting in the subarachnoid space as much superior to the method of injecting by trephining the skull. He saw, within a year, a case in which serum was injected by trephining the skull, and he had been very much impressed with the danger the patient runs of infection, when the operation is to be done three or four times.

In the first place, in a man in tetanic convulsions, the trephining operation has no tendency to improve his condition. Then, again, it is a question whether the injection of the serum in the substance of the brain itself has a tendency to abate the symptoms. The thing he noticed most was the necessity of reopening the skull to make successive injections. It would have to be done four or five times in this manner. The case he referred to died at the end of the fourth injection.

COMPOUND COMMUNUTED FRACTURE OF THE ELBOW: OPERATION: RECOVERY WITH USEFUL JOINT.

DR. A. T. BRISTOW presented a patient, who, last fall, was brought into the Long Island College Hospital; he had fallen on his elbow and had received a compound comminuted fracture of the elbow, the wound communicating freely with the

joint. Examination, under anesthesia, and a free incision, revealed the following condition: Both condyles were split off from the shaft of the humerus, and the trochlear surface between was comminuted. Dr. Bristow removed the small fragments of bone, practically most of the trochlear surface between the two condyles. Then drilling holes through the shaft, and through each condyle, he sutured the condyles to the shaft in the best position which he could secure, and put the limb in a right-angled splint with a small drain in the joint, leaving the arm so secured that the wound could be taken care of subsequently without disturbing the splint or moving the joint. No suppuration occurred whatever. The subsequent course of the healing was uneventful, and, very much to his surprise, he succeeded in getting a most useful arm. He had promised the man nothing better than a stiff joint. How much better nature did than he promised could be seen, as the patient had at least four-fifths of the normal motion of the joint.

TRAUMATIC RUPTURE OF THE KIDNEY.

DR. A. T. BRISTOW showed a specimen which he had removed from a patient, with the following history: Carpenter, weighing 200 pounds. Last Sunday, while engaged in work, a plank in a scaffold tilted beneath him and he fell for fifteen feet, striking crosswise of what is known as a carpenter's horse, receiving the blow between the ilium and the last rib. He was brought by the ambulance to the Kings County Hospital suffering from shock. On urination it was found that he was passing almost pure blood from the bladder. Dr. Bristow saw him shortly after his arrival at the hospital. On examination, his abdomen was very rigid and he complained of great tenderness over the right loin. The catheter withdrew a small quantity of pure blood. He had no bladder symptoms whatever, unlike a somewhat similar case the speaker had had in another hospital three years ago.

Dr. Bristow made an exploratory incision anteriorly for the purpose of satisfying himself there was no rupture of the liver and no further interference required through the peritoneum. The exploration proved that there was no injury within the peritoneal cavity, but in the retroperitoneal space, behind the colon and in front of the kidney there was infiltration of fluid which was recent, although there was no urine free in the abdomen.

He turned patient over and made the Thornton incision in the loin, exposing Gerote's cap-



sule, which was infiltrated with blood and urine. On enlarging the wound and passing the hand into the loin, the kidney was palpated and found to be lacerated severely. The injured organ was removed, the lacerations being too extensive to admit of repair. The patient did well subsequently.

In a case somewhat similar, which the speaker had had in the Long Island College Hospital, some three years ago, a similar accident was followed by a constant desire to urinate. That was the only symptom the patient had. There was no blood in the urine. That patient was mortally injured and died very soon, unoperated. The autopsy showed the following: The kidney had been torn entirely from its vessels and the ureter had been torn entirely from the kidney. There was a mass of hemorrhage, and the patient died from loss of blood and shock. It is doubtful whether any interference would have availed.

The interesting point of difference between these two cases was this: In the case reported to-night, there were no subjective symptoms of injury to the genito-urinary tract; in the other case, where the ureter was torn away from the kidney, there was a single subjective symptom—intense desire to urinate.

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#### BROOKLYN PATHOLOGICAL SOCIETY.

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HENRY G. WEBSTER, Editor.

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(February Transactions, continued from p. 256.)

DR. J. T. GALLAGHER: So far as the treatment is concerned, as outlined by Dr. Fairbairn, I cannot quite agree with his heroic doses of calomel. My usual custom has been to give small doses of calomel—as a starter 1-10 gr.—and give it every hour until effectual. That serves two purposes. It first of all relieves the diaphragm and enables it to work more freely, and secondly relieves the bowel. I repeat that process usually about every second or third day, especially in the case of infants or children having an accumulation of mucus in the lung. They will invariably cough it and then swallow it, so that there is no expectoration, and from this condition of mucus in the stomach we have an absorption fever. It seems to me the only way to overcome that is by giving calomel or something of that description.

I am very much opposed to the use of ipecac

and drugs of that kind, that are given to children, especially to make them vomit. I think there is one thing we want to avoid, and that is a vomiting or sick stomach in children.

So far as the opiates are concerned, I do not think there is any one who practices medicine that is now using opium in any form in broncho pneumonia.

So far as stimulation is concerned, I think it is the heart we mainly have to look after. We have here principally a condition where all the organs are impeded in their action, the digestion is at a standstill, the nervous system is upset, and the whole body seems overwhelmed with a toxæmia or infection. It seems to me, in order to treat that in any way intelligently, we have to get at the main cause, which seems to be the nervous system.

Some children will stand 103° easily, whereas others will succumb to 101°. To my mind the only way we can treat the disease intelligently is by bathing. I do not know of any particular drug that will help the expectoration, but for routine treatment I think the systematic sponge bath gives the best results.

We have lots of authorities who recognize that the sponge bath or the wet compress are ideal methods of treating a broncho pneumonia. In cases that I see where it is possible, I follow out the directions given by Baruch in his work on Hydrotherapy, I place the child in a bath of a temperature of 95°, leave it there about ten minutes, with friction over the body all the time; then remove the child to the bed or cot and thoroughly dry and wrap it up. I repeat that process every three to four hours while the temperature is above 103°, and if it goes to 102° I lengthen the intervals between the baths.

The only drugs that I at all use are the aromatic spirits of ammonia, calomel for the bowels, and strychnine in small doses where I think there is an indication for it.

DR. P. H. MOAK: I feel that there is very little that I can add on this subject, especially to the pathology of pneumonia, as Dr. Murray has given a very careful and complete description of the lesion.

I believe he said that 50 per cent. of the cases are primary lesions and due to the diplococcus lanceolatus. This is, of course, in lobular pneumonia. Now, I agree with Dr. Woolstein, who in working for Holt showed that this was so from the fact that, before five years of age the alveoli are not well developed; therefore, in a child under five years of age with this organism we have the

lobular pneumonia, whereas in children over five years of age and in adults we have a lobar pneumonia due to the same organism.

For the secondary pneumonias, those following the infectious diseases, as has been shown by Dr. Murray and mentioned by Dr. Fairbairn, nearly all of them are polymicrobial, *i. e.*, we find in the secretions more than one organism—we sometimes find several organisms. Dr. Reed spoke of the streptococcus. It is one of the most formidable organisms we have, of course, but yet at the same time the streptococcus under certain conditions with certain other organisms is not so bad as we find it when it acts alone. In other words, instead of a synergy where two organisms are blended together, there is the opposite of that condition.

Most of these secondary pneumonias are in the nature of terminal infections. We see it in practically every case that comes to autopsy, especially in all cases of any bacterial origin, and as a rule they are mostly fatal, that is, broncho pneumonia attached to any of the exanthems is a very dangerous condition.

As regards the question of infection, as Dr. Fairbairn has told us, we are going back a little bit beyond the bacteriology in many conditions to the old idea of "catching cold," and especially in diseases of the respiratory tract, *i. e.*, what condition is there behind the bacterium, which lowers the cell resistance, so that the organism can gain an entrance? One of the principal of these causes is cold. Over 70 per cent. of our broncho pneumonias occur in the winter and spring.

Then in patients suffering with these various diseases where we fear a secondary pneumonia from their catching cold, we should be very cautious about exposing them for purposes of examination. I think there is entirely too much carelessness in exposing patients to examine them; if the equilibrium is so easily disturbed they hang by straws, so to speak, and it is only a step over the line to bring on this condition—lowering the vitality.

As regards the treatment I was glad to hear Dr. Fairbairn speak about the use of diphtheria antitoxin. We are learning every day that the antitoxins which we know will do some good, will do good more than in those conditions for which they were originally brought forth. Diphtheria antitoxin is becoming more and more used, because very frequently we find organisms present as the cause of the secondary pneumonia, and partly for the reason that, going back to the

streptococcus again, we often find cases of the infectious pneumonias which develop erysipelas, the disease caused by the streptococcus, often remarkably quickly cleared up; therefore, with that idea men are coming more and more to use diphtheria antitoxin to counteract these mixed infections of secondary pneumonia.

All have spoke about sponging to reduce pyrexia—all mentioning the tub bath. It seems to me the rationale of alcohol there is quite fitting. If we find the child's skin is too tender, dilute the alcohol with tepid water. We then get the action of cold by the evaporation of the alcohol. I have also seen very good results from moderately cold and frequent saline rectal injections, washing out all material which might have been swallowed by the child, and also more or less saline is absorbed.

DR. G. E. DEELY: It is quite important to keep the bowels cleaned out, and also to avoid giving any medicine which might disturb the stomach, as in a child the breathing is mainly diaphragmatic, and anything which causes a disturbance of the stomach or the bowels will interfere with the respirations.

In regard to the pathology I have nothing further to add, except to report some research work made by Councilman of Boston. In an epidemic of diphtheria in Boston there were 220 cases. Of this number 131 had a broncho pneumonia. Ninety-eight of these cases were subjected to bacteriological examination. Sixteen cultures showed nothing at all, 49 showed the diphtheria bacillus, 51 the streptococcus, 5 staphylococcus and 4 the pneumococcus. This shows clearly that the streptococcus infection is very prominent in secondary pneumonias, and it has seemed to me that the use of antistreptococcus serum in some of these cases might prove of advantage.

DR. J. D. SULLIVAN: I have seen a great many cases of pneumonia, in children particularly. For over twenty-three years I have attended an orphan asylum where there are 1,200 children ranging from 2 to 14 years of age. Every winter there are pneumonias there almost continuously, and I think the mortality is less than 1 per cent.

I have systematized the treatment. Dr. Moak touched upon a very important point when he said we must go still further back to find the cause of these pneumonias, that is, the conditions which obtain when they take the pneumonia. It has been my experience that children brought up very tenderly, warmly clothed every winter, kept in warm rooms, get pneumonia very easily, and when they do take it they are very hard subjects



to attend. In private practice my results are not one-fourth as good as in St. John's Home.

The boys at the Home are clothed lightly all the year round; they never wear heavy woolen underwear; they are out and play a good deal of the time, and at night the windows are always open in the dormitories—some dormitories have 100 to 200 children. Exposing them to examine them does no harm.

Up there and in private practice also I have classified cases of pneumonia in children into two kinds, primary and secondary—whether they are broncho or lobar I do not always distinguish. There are two well marked distinctions in cases of pneumonia in children coming on as a primary disease with a chill, fever and rapid course and subsiding usually on the fifth to seventh day, and then they go on to convalescence, whereas the others convalesce slowly following whooping cough, measles, scarlet, diphtheria, etc. The mortality among that class is higher.

My treatment at the Home is arranged so that I do not have to order it more than once a month probably, except change the dose possibly. The child gets a bath and is put to bed, the chest is wrapped with a cloth wrung out of a mixture containing equal parts of turpentine and camphorated oil. Next is a dose of calomel 1 to 5 grains, and then from 1 to 3 grains of quinine *t. i. d.* That is the medication and they get well on it. There is another part of the treatment that I consider equally valuable, and that is the supply of water. They get all the water the stomach will contain. If the fever runs high we give them a saline enema—4 to 8 ounces of a normal saline solution once in three to eight hours, according to necessity, and, as a rule, the temperature will subside under that. The calomel is repeated every second or third day, or possibly every day depending on circumstances. Occasionally they get the chloride of ammonia in doses of 2 to 5 grains. They get plenty of fresh air, no pneumonia jackets, nothing on the bed or body more than they are accustomed to in health. We never bother about the temperature at all—it is simply an indication to give more water internally or by rectum.

I have learned up there when we do have a death it is due, as a rule, to toxæmia—the heart failure is due to the poisoning of the nervous system by the toxins in the body, and my object in giving so much water is simply to wash out the toxins. My object in giving calomel is to get the right heart unloaded, to keep the liver and

secretions unloaded and all the emunctories acting well.

Pneumonia at the Home is a self-limited disease. It runs a regular course, as well as scarlet, measles, or any other self-limited disease.

Regarding broncho pneumonia in younger children, I have very little dread of that where it is a primary disease. I treat it similarly, but, of course, we get a pneumonia very frequently following measles and whooping cough in particular. These run a high fever and the stomachs are out of order; as a rule they vomit readily and it is hard to nourish them. I have a child now a year old who has broncho pneumonia following whooping cough. During the whooping cough she began to have a high temperature and developed a broncho pneumonia in one lung. She went along very well for about a week, and as she was recovering from that a broncho pneumonia developed in the other lung and went along the same course. My great surprise was that there was such great dullness. I was apprehensive of an effusion in the pleural cavity, but I think there is no fluid there. She is doing well, but is now running a temperature of 101° or 102°. She has been taking the carbonate of creosote and strychnine from the beginning, in addition to the quinine, and I think it has done good. I think there is more danger in overtreating a majority of these cases than treating them too lightly.

DR. P. H. MOAK: What is the relation between the age and the dose of quinine in children?

DR. J. D. SULLIVAN: Two to three grain doses in children 5 to 10 years of age; 2 to 5 years, 1½ grains. I simply give enough quinine, even if it is ¼ gr., to get the tonic effect on the heart and nervous system. Quinine also neutralizes the toxins in the blood in small doses. Where children are young and the stomach is irritable, I use the oleate of quinine inunctions.

The carbonate of ammonia is more pungent than the chloride, but you get a more rapid stimulating effect from the carbonate than the chloride.

DR. H. N. READ: Dr. Sullivan says that the age of the orphans is from 2 to 14 years. The only criticism I have to make of Dr. Sullivan's remarks is as regards the prognosis; he has evidently confounded two distinct things, and given the statistics of recovery from lobar and broncho pneumonia together. These are two entirely different things. We are discussing the treatment of broncho pneumonia—not lobar pneumonia.

The mortality from lobar pneumonia in young children is very small, both in institutions and private practice. A child gets ordinary lobar pneumonia, and it runs its course in five or six days, sometimes four, but in a broncho pneumonia it is entirely different.

Again the worst cases occur in those younger than Dr. Sullivan has under his care at the Orphan Asylum. We know the difference in the pathology of these two diseases, and this explains the reason why one gets well so quickly and the other does not.

Dr. Sullivan's results of treatment are excellent, but I do not think his mortality statistics are as valuable as if his cases were separated into lobar and lobular pneumonias.

DR. J. D. SULLIVAN: I was not claiming such a low mortality for broncho pneumonia. We certainly have some cases of broncho pneumonia in the Orphan Asylum, and the treatment is the same as in a lobar pneumonia. When the lobular pneumonia is secondary to other diseases, of course the mortality is greater. It is very well to make a distinction between lobar and lobular pneumonia, but the treatment applicable to one is also applicable to the other, with the reservation that in the lobular type we must continue the treatment a good deal longer and more carefully.

DR. WM. MCCOLLOM: There are one or two points that impressed me, particularly in regard to external applications. One physician covers the chest over with antiphlogistine and another with a jacket, but I have found, after a pretty long practice in pneumonia, that I have been particularly careful in young children not to use cold sponging on the chest, even if the temperature goes up. I think bathing the child with cold water is worse than nothing, particularly in broncho pneumonia.

Dr. Sullivan speaks of the application of turpentine. For thirty years I have used that more than anything else, and I used it in a stronger form than the Doctor speaks of and with good effect. I dissolve gum camphor in turpentine forming a saturated tincture, and then add just oil enough to prevent its burning the skin. The chest is frequently bathed with this, and the evaporation of the camphor and turpentine keeps the air about the child's face pretty well charged with the camphor and turpentine, which I think is very important. I know Jacobi many years ago recommended it in broncho pneumonia. His method was to pour it on boiling water and have the children inhale it. I have no doubt from my experience with it, that it is a very valuable rem-

edy. The camphor is an anodyne and acts favorably. If you make your tincture of camphor very strong with turpentine, you get a very valuable substance to inhale.

I want to emphasize the use of creosote in the treatment of broncho or lobar pneumonia, as suggested by the reader of the paper. We are not using it as we should. Creosote seems to be inimical to germ life. I think it is one of the most valuable remedies we can use, not only for its effect on the bronchial mucous membrane, but also on the alimentary canal, for in most cases in children we have indigestion and flatulent distention with interference with respiration and the well being of our patients. If used properly it does much good in that way.

As regards stimulants, I do not like to use alcohol. I think the aromatic spirits of ammonia and sweet spirits of nitre, when freshly compounded, are very good stimulants to the heart's action. The sweet spirits usually dispensed by the druggists is worthless. When dispensed it should be opened from fresh cans.

As regards the use of strychnine in young children, I think it can be given in larger doses than those mentioned here. In children with a weak heart I give 1-60 gr. twice a day. I have never seen anything but good effect from it. I prefer that to quinine.

The very fact that Dr. Sullivan has had such success with his treatment is the best proof it is good treatment, but it would not do so well in private practice perhaps.

DR. J. P. MURPHY: In the discussion to-night I did not hear any one mention the action of calomel as we were taught at the P. & S. by Jacobi. He recommended the use of calomel in this condition. He claimed it had a specific action on the heart, that it diminished the number of beats to the minute and also had a marked influence in diminishing plastic exudation. Another thing, I did not hear Dr. Sullivan speak about the action of salicylate of soda upon pneumonic conditions. That is something he told me to use in pneumonic conditions some years ago, and during the past year the action of salicylate of soda has been much discussed as having a specific action on the disease itself.

DR. J. D. SULLIVAN: In lobar pneumonia of adults I use salicylate of soda in combination with bromide of ammonia, but it is seldom I give it to a child under two years of age. If it was a sthenic child, I would. It reduces the temperature better than cold baths, because it increases the action of the eliminative organs.



DR. H. A. FAIRBAIRN: Dr. Read says he prefers the aromatic spirits to the carbonate of ammonia. The aromatic spirits is a 20 per cent. solution of the carbonate; therefore, we are agreed.

With regard to quinine in pneumonia, beware of it. I do not know any better heart dilator in the world than quinine.

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## THE BROOKLYN PATHOLOGICAL SOCIETY.

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448TH REGULAR MEETING, MARCH 10, 1904.

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HENRY G. WEBSTER, M.D., EDITOR.

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The President, J. C. MacEvitt, M.D., in the Chair.

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### REPORT OF CASE: INTESTINAL OBSTRUCTION: SPECIMEN AND HISTORY.

DR. T. C. MCSHEEHY: This case, which entered St. Mary's Hospital on February 23d, was one of intestinal obstruction in a young man 18 years old, who five years ago had an operation for suppurative appendicitis. One year after the operation a ventral hernia occurred. This occasioned no trouble until two years ago, when he had several attacks of intestinal colic, which were confined to the right lower quadrant of the abdomen. He did not have any attack for a year until February 20th, when he was suddenly seized with a severe griping pain in the right side of the abdomen, with nausea and vomiting. He had been obstinately constipated for some two months.

On the 20th (he had been two days then without a bowel movement), a physician was called in, who gave him an enema, which was slightly effectual. He vomited persistently, and the griping pains in the abdomen continuing he was sent to the hospital on the 23d. On admission, his temperature was 98°, pulse 80 and respiration 24. His chief symptoms were severe pain in the abdomen, griping pains, nausea and vomiting and no bowel movement for four days. His abdomen was very tympanitic and in the area of the small intestine there was a tumor-like projection of the abdominal wall. There was some rigidity on the right side and extreme tenderness on pressure.

February 24th, fecal vomiting began, and at 5.45 P. M. he was operated on by Dr. Sullivan.

After the peritoneal cavity was opened, the small intestine to the left was seen to be ballooned up and that to the right collapsed. Over a small portion of the ilium was fastened a band, which started at the mesenteric attachment of the small intestine, passing down and up and over the small intestine to become attached to the anterior abdominal wall just below the umbilicus. On cutting this band it was found to be patent.

A purse-string suture was passed around the base of the band and it was removed by the Paquelin cautery, the stump was inverted and the suture tied. Afterward, a gangrenous spot was found about the mesenteric attachment of the small intestine, where the gut had been pressed upon by this diverticulum, which was appropriately treated. A saline solution was left in the abdomen and the wound closed.

The patient reacted very well after the operation, but still continued to vomit, although his stomach was washed out before being sent to the ward. On February 25th the patient complained of intense pain in the abdomen. Fecal vomiting returned, with all the symptoms of acute intestinal obstruction. At 4.30 P. M., the abdomen was again opened. Where the gangrenous gut had been tied off was found another constriction of the bowel and the intestines massed together. Four inches of the intestine were resected. An end to end anastomosis, by means of Connell's suture was accomplished. The abdomen was then irrigated with hot saline and closed up. The patient reacted remarkably well after this second operation, but some temperature was noted one hour after the operation.

On February 26th, the patient seemed to be doing very well, but the temperature still kept going higher. He could not retain anything by mouth and very little by rectum. On February 27th, five grains of calomel were given in divided doses, but no bowel movement occurred. On February 28th, the patient became very weak and died about 5.15 A. M.

### Discussion.

DR. J. C. KENNEDY: It is an interesting case and brings up an interesting subject—that of intestinal obstruction. I think Mr. Treves stated that 15 per cent. to 25 per cent. of cases of intestinal obstruction, due to strangulation, are caused by bands. This is the first case I have noticed at St. Mary's in a long time. In looking over the last 100 appendicitis cases I have operated on, I have not noticed one case of this kind. There have been some peritoneal adhesions, etc., so I imagine that these cases are very rare.

## REPORT OF CASE: FIBRO-ADENOMA OF THE MALE BREAST: SPECIMEN AND HISTORY.

DR. F. W. WUNDERLICH: L. F. R., age 20, native of United States, surveyor, consulted me first on June 1, 1902, for a tumor in the right breast. He came because the tumor had increased in size during the preceding week.

The right mammary gland was larger than the left. The tumor was freely movable in every direction and was not adherent to the skin or to the deeper structures. He had no pain and there was no tenderness on pressure. I saw him again June 22 and July 13, 1902, and since there was no appreciable change in the size of the tumor, and he had no pain I advised non-interference.

January 29, 1904, he presented himself again. The tumor had increased in size and was painful on pressure. Advised removal.

Patient was admitted to St. Peter's Hospital, February 6, 1904. Excision of right mamma with tumor on the same day. The tumor proved to be larger than was surmised from the external examination, and it extended farther toward the axilla. The hemorrhage was quite free, considering the size of the tumor. On examination, the pathologist pronounced it to be a fibro-adenoma.

A point of interest in connection with this case, is that at the time of birth of this young man the right mammary gland was larger than the left, and for a week or longer the breast secreted a milky fluid resembling cholostrum. The gland was swollen red and painful during this time.

*Discussion.*

DR. J. M. VANCOTT: That specimen is interesting for this reason: Neoplasms of any kind in the male breast are exceedingly rare. Hyperplasia of the glands of the male breast is much rarer. I think I have seen but one case of carcinoma of the male breast, and this is the only other case I can recall in eighteen years of pathological work, where the glands of the breast in the male were in hyperplasia.

## PATHOLOGY OF CARDIAC SYNCOPE.

DR. J. M. VANCOTT.

DR. J. A. McCORKLE discussed this paper along the line of treatment. He spoke of digitalis as the most thought-of remedy, but confessed to being often disappointed in its effects, citing the slow action by mouth, especially in tablet form. He remarked the greater toleration in patients with higher fever. Because of the cumulative effect, he had seen the heart overwhelmed by the drug when defervescence occurred. Strychnia

hypodermically, gives the most rapid effects, the speaker expressing his preference for the phosphate. Hot enemias of strong coffee are prompt and efficient. Caffein sodabenzotat is an admirable drug. It is also an index of the heart's condition, for when that organ fails to respond to a repeated dose it is past stimulating. Tincture of capsicum by stomach is a rapid indirect stimulant. Morphia, especially when combined with atropine, will sustain and give a sense of comfort in terminal stages.

DR. J. S. WATERMAN: I noticed in Dr. Van Cott's admirable paper no special mention of the neurasthenic type, or the type of heart syncope we see in extreme nervous prostration. We sometimes run across these cases where every valve seems to leak and death seems imminent. These cases trouble us all very much, and it seems to demand the most extreme and judicious stimulation that we can give.

I wanted to speak about the action of caffeine that Dr. McCorkle spoke of, which is such a valuable remedy, and which is so often undervalued and overlooked. Oftentimes, it is almost impossible to get a good action of the kidneys by giving digitalis, where one can get almost complete emptying of the tissues by the judicious use of caffeine. The use of it, together with some other stimulation, is very important at times. Alone, it oftentimes will fail. Alone, digitalis or strychnine. Alcohol, also, is a stand-will frequently work well.

In other cases where the lungs are involved, not necessarily in pneumonias, but in general cardiac failure, the combination of digitalis with convallaria will oftentimes clear the pulmonary circulation where you cannot do it alone with digitalis or strychnine. Alcohol, also, is a stand-by with us all in pneumonia and typhoid fevers.

The newer remedies, like the use of adrenalin, I, personally, have had no experience with, but the recent literature on the subject is certainly very encouraging for the use of adrenalin, particularly in saline infusion injected under the skin.

Many of these cases of heart failure can be warded off if taken early when the heart is really over-acting. We can relieve the over-acting heart by either a vaso-dilator or a depressant. Some of these cases are certainly very wonderful in their results treated in that way.

DR. A. F. ERDMANN: A medical journal recently states that there probably have been somewhere in the neighborhood of 5,500 sudden deaths during the last year in the City of New



York. Of that number I feel very confident there were not more than 40 or 50 which came under the specific head of which we are speaking, so that in the first place my say will be very little.

In the second place I think there is much less to be said, because there does not seem to be a knowledge of the true pathology of anesthesia syncope. Anyway, it is very discouraging to look over the number of cases reported and find the few autopsies that have been made to determine what the post-mortem changes were; and even the necropsy was made, the findings are often reported as simply negative. The pathologist says the organs all seem to be healthy, and yet again a very common report is simply the heart was healthy, the brain and the lungs were very much engorged with blood, other organs healthy, or as in some instances, some reference is made to a fatty condition of the heart. In only one or two instances, is any reference made to anemia of the central nervous system, so that it would seem as if perhaps there might be a number of causes which induce cardiac syncope under an anesthetic.

I do not doubt at all, that many patients who die in syncope, under anesthesia, do so because of fright, etc. This was not so well recognized years ago. Dawbarn, of the Polyclinic, last year, read a very excellent paper showing in how many instances death was caused probably by fright—the application even of a stethoscope killing the patient from fright. The placing of a cone without an anesthetic over the patient's mouth—the patient died. The injection of a preliminary saline solution—the patient considered it part of the anesthesia and died. These are probably cases of pure fright, and there would not be any pathological findings in any condition like that, everything would be normal, or they would be such as one finds in deaths under sudden stress of emotion, of joy, grief, fear, etc.

Repeatedly in the narcosis of anesthesia, one finds early a condition of extreme cyanosis, and sometimes an anesthetist is criticized for not discovering it sooner. Perhaps the tongue has fallen back—a pure case of mechanical asphyxia causing obstruction. Something has been unheeded, or as we find in some other instances, the so-called status lymphaticus in a child, for instance, one may find that the thymus gland was so enlarged that it compressed the heart, and that the mere mechanical pressure on the heart was the cause of death. So that in these instances the pathological findings would be such as would

be found in some cases, even though no anesthetic had been given at all, and yet all these are classed under anesthetic deaths and the anesthetist is held responsible.

No doubt there are true cases of anesthetic deaths. I recall that some time ago, in preparation of a paper on Ethyl Chloride, I came across the case of a man in Switzerland, in which the findings were an engorgement, but a fairly normal condition of the heart. There was some arterio-sclerosis, yet no ecchymosis, as is found in asphyxia. It was believed there must have been some spasm of the glottis, producing extreme intrathoracic pressure, causing decided impairment of the coronary vessels and consequent failure of nutrition to the heart and death.

Doubtless these cases are found, and yet they are rather hard to determine on the autopsy table. It occurs to me that after all the true pathology of anesthetic death is to be found not so much in the heart muscle itself as in some marked change in the nervous system, that is due to some change in the centers in the medulla, for many of these cases give evidence of what we may call a paralytic rather than a suffocating asphyxia.

In general, the subject is a rather interesting one. I have not mentioned the cases of vagus irritation, which doubtless do occur. Adler, in a recent paper, suggests that the condition of arterio-sclerosis is found not only in the aged, but is common to most every age, and is due to a condition of the body itself. So, even in young people, death may be due to arterio-sclerosis.

A writer recently took blood counts during the course of ether anesthesia, and he found there was a marked leucocytosis, amounting to an increase of seven per cent., and that at the beginning of the anesthesia, too. Possibly the pathology of anesthetic death is to be found in the medulla and cerebrum rather than in the heart itself.

DR. A. R. JARRETT mentioned his own case, stating that he blamed tobacco for the condition. The neurosis is still present on occasion.

DR. J. F. GALLAGHER: The only remedies I would like to add to the therapy of cardiac syncope is the action of some quick diffusible stimulant. We are oftentimes called to see these cases, and we cannot often depend on the action of strychnine, digitalis or caffeine. We must have something that will act quicker than that, and I have always used as a rule some quick diffusible stimulant, such as Hoffman's Anodyne or the Aromatic Spirits of Ammonia, or even the pure ether itself. I think the stimulation of Hoffman's Anodyne is simply due to the ether. I

think the stimulation in the aromatic spirits is due to the carbonate of ammonia in the combination. These three things should be used in cases of this character, simply because they are quick diffusible stimulants.

DR. G. R. KUHN: I do not know there is much I can say on this subject. The danger very often is that we attempt to do too much in the way of applications. I sometimes resort to inhalations of nitrate of amyl, nitroglycerin injections, the inhalation of ammonia and applications to the body and head. As has been said, the aromatic spirits of ammonia, and preparations of that character, are valuable as quick diffusible stimulants.

DR. H. G. WEBSTER mentioned the use of suprarenal extract, stating his preference for drop doses of adrenal chloride or some similar preparation absorbed from the back of the tongue.

DR. H. C. KEENAN: So far in the discussion, we have simply seemed to take up the treatment. I do not believe we can apply any proper method of treatment without fully understanding the nature of the case which we have to treat. Dr. Van Cott has very ably shown us, that although grouped under one name of cardiac syncope, still the condition is due to a number of different causes, some of which may be very diverse, so that through the mere fact of putting all our attention on the heart, it may escape our minds that there are a large number of other conditions from which the patient is suffering, and which need to be relieved.

For instance, if we have a syncope, due to a contraction or constriction of the blood vessels, it is evident some of our cardiac stimulants will be of no avail. Likewise, if we have a large dilatation of the vessels throughout the body, it is evident that we will need an entirely different class. If we have, for instance, an acute dyspepsia, bringing on a pressure of the stomach upwards on the heart, a patient falling into the faint with rapid, feeble pulse, it is evident the mere fact of stimulating the heart does not entirely relieve that condition—that the stomach must likewise be attended to, so I think it would be well if some of the members would bring out, as Dr. Van Cott expressed a hope to hear, a discussion on the differential diagnosis of some of these cases of syncope, so that we can apply our treatment intelligently.

DR. F. W. WUNDERLICH: The only thing I would add is to call attention to one heart stimulant, and that is diuretin. I have given it, for in-

stance, where ordinarily caffeine is indicated, and I have given it in conjunction with digitalis, and have found that it is quite beneficial in many cases where the caffeine failed. Its action is rapid.

DR. J. M. VAN COTT: I have been interested in the discussion. Personally, I cannot consider anything more fascinating than the application of remedies to the heart in syncope. As Dr. Keenan has said, if you are going to succeed you must be exactly right in pressing the right button; otherwise remedies are often misused and do great harm. I think no drug is used more than nitroglycerin, with the idea it is a cardiac stimulant, and it is used at times when the vessels are so dilated as to place the patient in jeopardy.

As to what Dr. Waterman said concerning neurasthenia, I certainly concur. I have used all sorts of cardiac stimulants in neurasthenia, and in many cases you might just as well give water. I think to improve the condition of the neurasthenic means to treat the neurasthenia itself—rest and perhaps electricity, with plenty of good food, but cardiac stimulants are indeed useless.

The discussion has been very flattering to me and exceedingly interesting. I have gained a good many points, especially in the matter of anesthesia. I am inclined to agree with the Doctor in his view of the real cause of death under an anesthetic with cardiac syncope. I have seen a number of cases of anesthesia followed by sudden syncope in very obese people, and I have been inclined to think that it was due to the carrying of fat in ethereal solution into the blood and auto-intoxication as the result. I also remember some cases of temporary insanity following the use of ether as an anesthetic in very obese people.

As to the leucocytosis, I cannot say anything. The matter has just been called to my attention by the doctor, and it is a question whether that may not be due to different causes. Many operations on patients are done at a time when they are septic, and when they have something in their system which calls for a leucocytosis. In those cases, where the operation is done without any such condition, it is an interesting problem as to what causes the leucocytosis. We know that leucocytosis in the blood, over and above the normal percentage, is there for some purpose. It is there to remove something, and it does it partly by the power of the leucocytes to absorb substances and digest them, and partly from their power of omitting from their substance antibodies, which will neutralize other substances



which have gotten into the blood. I suppose that will be the line along which the leucocytosis will be worked out.

## BROOKLYN MEDICAL SOCIETY.

The Ninety-first Regular Monthly Meeting of the Brooklyn Medical Society was held on the evening of Friday, March 18th, 1904.

The President, DR. WILLIAM B. BRADER, in the Chair.

Minutes of the previous meeting read and adopted.

Applications for membership:

Dr. Claude C. Crane, 41 Halsey Street, P. & S., 1900.

Dr. John A. Ferguson, 1187 Gates Avenue, L. I., 1896.

Admissions to Membership: Drs. J. F. Halpin, Louis Schaeffer, Paulo Viridoni.

### CLINICAL SECTION.

DR. WALTER WOOD, Chairman.

1. DR. J. E. JENNINGS read the report of and presented the microscopic sections of a case of Epithelioma of the scalp before and after X-ray treatment.

2. DR. W. B. BRINSMADE read a short paper and made a few comments on a case of Morton's toe or metatarsalgia. He said that the man had intense pain in the transverse arch of the left foot which grew steadily worse and extended up foot, leg and thigh. Sitting caused great agony and he had to stand to get relief, which he also obtained by extending and flexing the toes. Examination by the Roentgen rays proved negative. The disease was due, he said to the pressure of the dislocated heads of the metatarsal bones on the plantar nerves. He tried all kinds of treatment and found that the patient got most relief by having the shoe of the affected foot modified so that the proper pressure would be brought to bear on the heads of those bones. He showed the modified shoe, the modification consisting in building up the sole of the shoe at the junction of the plantar arch and the instep.

DR. R. W. WESTBROOK emphasized the fact that metatarsalgia was due to wearing wrong shoes, that it occurred in women more than in men, and that the condition was due to the pressure of the metatarsal bones on the relaxed joint.

DR. BRINSMADE noted the fact that a large proportion of cases were due to getting off trolley cars.

3. DR. FRANK CLARK reported a case of tetanus which had recovered after the use of the antitetanic serum. Patient, a ten-year-old boy, fell and cut knee with a rusty can. Wound was cleansed with a carbolic acid solution and sewed with catgut, but despite care wound failed to heal, and knee became swollen and the joint stiff. Two weeks after was taken with a severe spasm and lancinating pain from head to foot, that occurring on the 6th of February; on the day of 7th nothing occurred, but during the night had spasms at intervals of five minutes all night; on the 8th spasms occurred every one or two minutes. On the 9th, under an anæsthetic, an aspirating needle was inserted between the sacrolumbar vertebrae, and after evacuating the spinal fluid 20 c.c. of the antitetanic serum was injected. Boy was pronounced episthetinos and had to be fed standing with a fluid diet. After first injection had twelve spasms in the next twenty-four hours. A second injection of 20 c.c. was then given and spasms became less tonic and his head became more movable. On the 13th a third injection was given, and that night he had no spasms and has had none since. The knee then began gradually to heal, and the patient was eventually restored to health.

DR. W. F. CAMPBELL was a little pessimistic as to the use of the antitetanic serum, and cited a case of a man who had died on the seventh day after injection. He said that there would be less cases of tetanus if all wounds which were contracted in garden soil, stables, etc., were kept open and not allowed to close too soon.

DR. BRINSMADE also emphasized the necessity of keeping those wounds open.

DR. E. A. PARKER reported three successive cases of tetanus which had been cured by the use of the antitetanic serum.

4. DR. HENRY KEENAN reported case and presented a specimen of a pyosalpinx which he had removed from a patient, the distinctive feature of the case being that the woman absolutely gave no previous history of said trouble.

5. DR. WALTER WOOD reported the case of a fracture of the elbow joint in a child. He created some discussion by advocating treating these cases in the extended position. The case he cited was that of a fracture of the humerus above the condyles.

### PROGRAM.

PAPER: "MUCOUS COLITIS."

DR. H. W. LINCOLN.

Discussion by DR. R. C. KEMP of Manhattan and DR. JACOB FUHS of Brooklyn.

## BUSINESS MEETING.

Motion was made and seconded that the President appoint a committee of three to confer with the representatives of the County Society in reference to the establishment of a branch library in this vicinity and that their report be subject to the approval of the president and the treasurer.

Attention was called to the act now before the Legislature having for its intention the abolition of the officer of Coroner in the City of New York. A motion was made, seconded and carried that the Brooklyn Medical Society be put on record as being opposed to that section of the bill which placed the new Board of Examiners which were to be appointed in place of the Coroners under the supervision of the Department of Health. Believing that the best interests of the community would be subserved by keeping said departments distinct and separate, and that the sentiments of this meeting be conveyed to the Senator of this district.

A motion was made, seconded and carried that a committee of three be appointed by the President which shall be known as the Committee on Health.

Another motion was made, seconded and carried that a committee of three be appointed by the President which shall be known as the Committee on Legislation.

A motion was made, seconded and carried that Dr. Amos Brundage be elected an Honorary member of this Society.

A letter was read from Mr. F. F. Doyle, counsel to the Society, thanking the members for re-electing him to that office.

Adjournment and social session.

HUGH EDWARD ROGERS, M.D.,

Recording Secretary.

In referring to the differential symptoms between syphilis and tuberculosis of the cartilaginous septum, Dr. Goodale, in the *Annals of Otolaryngology and Laryngology*, March, 1904, states, that in general the microscopic appearances are similar, the chief points of distinction being that in tuberculosis there are few new-formed blood vessels, while in syphilis they are found to be numerous, among the proliferating endothelial and connective tissue cells. In syphilis, giant cells and aggregations of epithelioid cells are few; in tuberculosis, giant cells and aggregations of epithelioid cells are numerous.

## Brooklyn Medical Journal.

All communications, books for review, articles for publication, and exchanges should be addressed BROOKLYN MEDICAL JOURNAL, Library of the Medical Society of the County of Kings, 1313 Bedford Avenue, Borough of Brooklyn, New York.

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Alterations of the proof will be charged to authors at the rate of sixty cents an hour, this being the printers' charge to the JOURNAL.

Entered at Brooklyn, N. Y., post office as second-class matter.

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BROOKLYN-NEW YORK, JULY, 1904.

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### STREET HYGIENE AND STREET SWEEPERS.

Physical examinations, now proceeding, of the corps of street sweepers of this city have brought to light the fact that a surprisingly large number of those employed in this capacity are afflicted with tuberculosis of the lungs.

The ultimate object of the investigation has not as yet been made clear to us, but the matter which will doubtless interest most physicians and laymen, is whether a connection can be shown to exist between the occupation and the disease.

The discovery that there is a connection between the occupation of street sweeping and the occurrence of tuberculosis of the lungs in street sweepers would not be surprising, in view of the fact that the occupation involves exposure to much inhalation of street dust which has many times been shown to contain tubercle bacilli in considerable numbers.

Pending the outcome of the investigation which bids fair to establish a connection between the occupation and the disease, why, we should like to ask, is not the use of the sprinkling can universal with the sweepers of street dust rather than the exception. Inquiry directed to the Department of Street Cleaning has developed the fact that the men have orders to use the hand sprinkler. Perhaps the examinations now being conducted are intended to demonstrate to the men themselves, at once the usefulness of this order and Nature's penalties of the disregard thereof. If the value of the sprinkling can as a preventive factor in the spread of tuberculosis can be successfully demonstrated to the sweepers themselves, perhaps we may yet see the streets of Brooklyn swept without the usual accompanying clouds of dust.



## A PHYSICIAN IN THE PRESIDENT'S CABINET.

Considerable discussion has been carried on during the past few years, chiefly in the editorial columns of medical journals, concerning the desirability of the medical profession being represented in the cabinet at Washington.

A definite move toward this desideratum was made during the sitting of the recent meeting of the Medical Association at Atlantic City by the vice-president of the Association, who advocated the formation of a national department of health, represented by a physician at its head, who should be a member of the cabinet.

Matters of public health affecting the well-being of individuals and communities of two or more states would be more promptly and comprehensively treated, and matters of medical legislation, affecting the country as a whole, would be more intelligently administered, by reason of the presence of a skilled adviser in the cabinet of the President of the United States.

Questions of public sanitation and hygiene may so profoundly and directly affect the increase of population and the statistics of mortality—matters closely related to the strength of the nation—that it is not unreasonable to suppose that the country would be benefited by the addition to the cabinet of a member of the medical profession, as has been formally proposed.

## THE PAN-AMERICAN CONGRESS OF 1904.

It has been proposed to hold the next Pan-American Congress, which meets every three years and which falls due next year, at Panama. It is desirable for the success of this meeting that the subject be discussed from various points of view, well in advance, since a desirable meeting place is a *sine qua non* of a successful meeting. We publish in another column a communication from Dr. Ramon Guiteras, Secretary of the International Executive Committee, and trust that the notices of the committee, which will, of course, appear elsewhere, will receive the wide attention which they deserve.

The article on bilharziosis, in the present issue of the JOURNAL, directs attention to the fact that this disease may be looked for in Brooklyn with a certainty of its being occasionally found. One would suppose a case might thus be encountered in genito-urinary clinics. The bloody discharge after micturition would seem a typical differential symptom.

## MEDICAL NEWS.

EDITED BY CLARENCE REGINALD HYDE, M.D.

*It is earnestly hoped that all members of the profession possessing news concerning themselves or their friends, which would interest others, will communicate the same to the News Editor before the 9th of each month. Items for this department should be sent promptly to Clarence Reginald Hyde, M.D., 126 Joralemon Street.*

Dr. C. E. Scofield announces the removal of his office to 72 Lee Avenue.

Dr. W. G. Reynolds sails on the Kaiser Wilhelm June 30. He goes to Germany to complete his studies of the eye and will return in the late autumn.

Dr. John O. Polak, of Clinton Avenue, has been tendered and has accepted the Chair of Obstetrics at Dartmouth Medical College, Hanover, N. H., made vacant by the death of Professor Parish, of Philadelphia. Professor Polak will deliver his course of lectures during October.

At the recent laying of the corner stone of the new Woman's Hospital, in Manhattan, it was of interest to note that the corner stone of the old building, bearing the date "1855", was used as the corner stone of the new building.

The State Hospital for the Insane, at Trenton, N. J., recently graduated nineteen nurses, especially trained for the treatment of the insane. The plan is a new one. All members of the class will be retained at the hospital.

Dr. Richard P. Strong, director of the Biological Laboratory at Manila, has written a paper, showing how the Panama Canal may be come a factor in introducing yellow fever into the Eastern possessions of this country and the entire Orient. He shows that the Hawaiian Islands, Guam and the Philippines will be exposed to the importation of yellow fever, or of the mosquito that carries the fever, unless the disease can be banished from Panama. The disease follows the lines of commercial travel, and is introduced by vessels in hitherto uninfected regions.

The next meeting of the Pan-American Congress will be held in Panama the latter part of December. The Pan-American Congress meets every three years. It was started by Dr. William Pepper, of Philadelphia; Dr. C. A. L. Reed, of Cincinnati; Dr. Albert Van der Veer, of Albany, and Dr. H. L. E. Johnson, of Washington. The

first meeting was held in Washington in September, 1893, the second in Mexico in 1896. The third was to have been held in Venezuela in 1899, but was given up on account of the war in that country. The place of meeting was changed to Cuba, but had to be postponed until 1901 on account of the fever there. These meetings have always been well attended, and it is thought that Panama will be an interesting place for the Convention.

The State Commission in Lunacy, on May 21st, made the following transfers, to take effect June 1st: Dr. O. M. Dewing, from the Long Island State Hospital, Kings Park, to the Long Island State Hospital, Flatbush; Dr. W. A. Macy, from the Willard State Hospital to the Long Island State Hospital, Kings Park; and Dr. R. M. Elliott, from the Long Island State Hospital, Flatbush, to the Willard State Hospital. Since the notice of transfer was issued, the order was changed to August 1st. There is supposed to be considerable politics behind all these transfers, which were not announced until Governor Odell was just leaving for Europe. The transfers are said to have caused considerable indignation among charity workers.

The following graduates of the Long Island College Hospital were appointed internes at the hospital: Robert Ira Bull, Elliott I. Dorn, Henry M. Moses, Alexander S. Sim, William H. Snyder and Joseph Raphael. The prizes awarded to winners were: Dudley medal, Dr. William H. Snyder; Dudley Memorial Medal, Dr. Joseph Raphael; Chauncey L. Mitchell prize, Dr. Robert Ira Bull; Gordon L. Ford medal, Dr. Joseph Raphael; Alexander J. C. Skene prize, Dr. William H. Snyder. Dr. Henry M. Moses and Dr. Samuel Frank were appointed demonstrators of anatomy in the college for two years.

Dr. Henry M. Moses, who was valedictorian of his class at the Long Island College Hospital for this year, graduated from Amherst College in 1897 as a bachelor of science, and three years later received his master of arts degree. This was the first time in the history of Amherst that a master's degree has been conferred upon a bachelor of science. He was a member of the Phi Delta Theta at Amherst, and was president of his class at the Long Island College Hospital for sophomore, junior and senior years.

Dr. M. Rosier, of Morrell Street, this borough, reports a most interesting and rare case of a child born without an abdominal wall—merely a covering of peritoneum. The mother and father of the child are healthy and strong and have

six other perfect children. The monstrosity is perfect in every particular, with the exception that the layers of tissue forming the abdominal wall are missing from the ensiform cartilage to the pubic bone in front, and laterally, from the free border of the ribs to the crests of the iliac bones. At birth, the peritoneum was open, but was closed by the doctor. The child later died of peritonitis, as was expected.

Dr. Hugh Edward Rogers sailed on the steamship *Deutschland*, on Thursday, June 9th, for Europe. He will visit Hamburg, Munich, Paris and London.

A gift of \$25,000 to the Home for Incurables was announced recently by the vice-president, D. O. Mills, at the exercises attending the thirty-eighth anniversary of the home. The gift was made by Miss Emily A. Watson, a patroness of the institution, and will be used to erect a four-story fireproof building, to be known as the Nurses' Hall. It will contain quarters for the men nurses and twenty-five rooms for patients. Building will begin soon, and it is expected that the structure will be finished and ready for occupancy by October 1, 1904.

New York is soon to have three more public baths, one of which will be opened this month. The new buildings represent a long advance in construction and arrangement over any others of their kind in the United States. It is estimated that by keeping open each bath sixteen hours a day, it will accommodate nearly two million bathers yearly. Any Brooklyn physician interested in this work has only to visit the public bath on Hicks Street, this borough, in order to appreciate how fifteen to eighteen hundred people are bathed in one day. The experience will amply repay the visit.

The near departure of Dr. R. M. Elliott, Superintendent of the Long Island State Hospital, at Flatbush, was recently made the occasion by the employees of that institution for an expression of their esteem for their chief. Dr. Elliott was presented with a handsome silver tea set, bearing his monogram and an inscription, stating that it was a gift of the employees as a testimonial of their regard for the doctor. Dr. Elliott's transfer is regarded as a promotion.

At the annual meeting of the Queens-Nassau Medical Society, in Mineola, the following officers and committees were announced: President, F. T. Delano, Rockville Centre; vice-president, W. J. Burnett, Long Island City; secretary and treasurer, James S. Cooley, Glen Cove; censors, J. W. Durkee, Sea Cliff; I. T. Barnes,



Oyster Bay; M. M. Slocum, Far Rockaway; J. Mansfield Foster, Valley Stream; J. H. Barry, Long Island City. Executive committee—H. M. Auger, Jamaica; F. T. Delano, Rockville Centre; J. S. Cooley, Glen Cove. Delegates to the Suffolk County Medical Society—H. M. Warner, Hempstead; W. H. Zabriskie, Glen Cove. Delegates to New York Medical Society—J. Ordronaux, Roslyn; W. G. Frey, Long Island City. Delegates to Kings County Medical Society—J. H. Bogart, Roslyn; William H. Malcolm, Jericho.

The nineteenth regular meeting of the Associated Physicians of Long Island was held at the Manhattan State Hospital, Central Islip, L. I., Saturday, June 18th. As usual, there was a special train leaving Brooklyn, on which lunch was served for the Brooklyn contingent. The programme of the executive session was under the direction of Dr. James P. Warbasse, chairman. He announced the following papers: Care of the Infant, Dr. Henry P. DeForest, Brooklyn; Causes of Death Among the American Aboriginal Peoples, Dr. Frederick A. Cook, Brooklyn; Intestinal Antisepsis, with especial reference to Benzoyl-Acetyl-Peroxide, Dr. William H. Ross, Brentwood, L. I. The dinner of the society was held at the State Hospital, at which, the President of the Association, Dr. Robert J. Morrison, of Brooklyn, presided. A large number of Brooklyn physicians were in attendance.

## BOOK REVIEWS.

PRACTICAL MEDICINE SERIES OF YEAR BOOKS. 1903, Vol. 3. The Eye, Ear, Nose and Throat. Edited by Casey A. Wood, Albert H. Andrews and Gustavus P. Head. Chicago, Year Book Publishers, 1903. 332 pp. 12 mo. Price: Cloth, \$1.50.

The editors have admirably succeeded in giving to the profession a condensed review of the year's progress in the treatment of diseases of the eye, ear, nose and throat. Mazet advises benzoate of lithium for corneal maculæ. Solutions of lithium benzoate, varying in strength from two and a half to ten per cent., are instilled into the affected eye. A period of six months or a year is needed for a cure. Siderophone is the name given to a new instrument for determining the presence of a piece of steel or iron in the eye. The apparatus is said to be "cheap, simple and efficient." The Editor of the section devoted to the ear recommends, in all acute pain in the ear, not due to pyogenic infection, the use of twelve per cent. carbolic acid in glycerin. Ray reports four cases which "*show the inefficiency of Wilde's incision.*" One case, which resulted fatally, probably might have been saved had the cells and antrum been opened at the time of the Wilde's incision. Nearly four pages are given to a review of Braislín's article on Inflammation of the Mastoid, which appeared in *Medical News*, December 27, 1902. About one hundred pages are devoted to diseases of the nose

and throat. There is a brief discussion on the subject of anesthesia for operations on children. "While chloroform is generally held to be a safe agent in children, yet the reported cases of deaths from its use are too many to justify this assumption." For short operations nitrous oxide seems to be preferred.

JAMES W. INGALLS.

A MANUAL OF TOXICOLOGY. A Concise Presentation of the Principal Facts Relating to Poisons, with Detailed Directions for the Treatment of Poisoning. Also a Table of Doses of the Principal and Many New Remedies. By Albert H. Brundage, A.M., M.D., Phar.D., *Third Edition, Revised and Enlarged*. N. Y., Henry Harrison Co., 1903. x, 11-401 pp., 1 tab. 16mo. Price: Cloth, \$3.00.

The appearance of a third edition of this work in less than four years is sufficient evidence that the book is held in high esteem. The general arrangement remains the same as in the preceding editions. The first part containing a classification of the poisons, with general directions as to treatment. In part two will be found an alphabetical arrangement of the various cases of poisoning exhaustively dealt with, the advice given being sound and to the point. Under part three will be found cuts of the poisonous plants, together with a key to the treatment of the principal poisons, which will be found of great service for ready reference in emergency cases.

Tables for the identification of poisons and a guide to Post-Mortem procedure and appearances are also clearly and concisely given. Part ten deals with chronic poisoning and drug habits, while the Appendix contains much information of value, such as the Dose table giving the dose of the drugs in common use, also a table of the Maximum Daily doses of the drugs in common use. Directions for making Post-Mortem examinations, key to Urinalysis, together with various tables of weights and measures are also given.

WILLIAM SCHROEDER, JR.

PRACTICAL POINTS IN PHYSIOLOGY. A Collection and Arrangement of Some of the Most Important Physiological Facts, with which are Presented Certain Associated Anatomical Features. By Albert H. Brundage, A.M., M.D., Phar.D. N. Y., Henry Harrison Co., 1903. 58 pp. 16mo. Price: Cloth, \$0.50.

This is a small but thoroughly practical work, giving a compact and comprehensive presentation of the subject. It is particularly adapted for the use of pharmaceutical students, but will prove of value also to the physician as a means of refreshing his memory. Special attention is paid to Digestion and Absorption, also to the Classification, constituents and digestibility of different foods. The chapter on the Nervous System, Special Senses, etc., will be found of great value to the student.

The charts and explanatory notes throughout are those of Dr. Brundage, which the author considers the most practical and useful for the Pharmaceutical student.

WILLIAM SCHROEDER, JR.

SAUNDERS' MEDICAL HAND-ATLASES.—ATLAS AND EPITOME OF OPERATIVE GYNECOLOGY. By Dr. Oskar Schaeffer. Authorized translation from the German, with Editorial Notes and Additions. Edited by J. Clarence Webster, M.D., (Edin.). 138 pp., 42 col. pl. 12mo. Price: Cloth, \$3.00.

This is a new addition to Saunders' Series of Hand atlases. It is profusely illustrated with lithographic plates prepared from water colors and drawings, based on hundreds of photographs taken from nature. These endeavor to reproduce faithfully and in as instructive a manner as possible, the various surgical situations which they are intended to illustrate. "The drawings are intended to illustrate the individual steps of an operation, clinically, to the students on the benches."

Plastic operations on the cervix, vagina and posterior wall are designated by names familiar to all gynecologists, and bear the imprint of Continental technic. The whole book savors strongly of foreign methods, which,

while of the same general idea as those operations devised by our specialists in this country, yet differ markedly in detail.

But one American operator is quoted, i.e., Emmet. Ectopic gestation is treated in a most scanty manner, and the un-American vaginal route is elected, not only for this pathological condition, but for nearly all the major pelvic operations. Curettage is designated by two unfamiliar synonyms, "abrasio mucosæ," and "re-clage." Tents are recommended for clinical dilatation. Many foot notes have been added by the translator who appends many just criticisms to the operative technic of the author, thus most fitly illustrating the difference between our methods and those of the Continent.

Students, however, will find the book useful, although they can gain as much information, if not more, from American text books. The typography and plates are excellent and deserve special mention.

CLARENCE R. HYDE.

**TEXTBOOK OF OPERATIVE SURGERY.** Covering the Surgical Anatomy and Operative Technic Involved in the Operations of General Surgery. Written for Students and Practitioners. By Warren Stone Bickham, Ph.D., M.D. Phil., N. Y., and Lond., W. B. Saunders & Co., 1903. 984 pp. 8vo. Price: Cloth, \$6.00; Sheep or Half Morocco, \$7.00.

From cover to cover this book is filled with practical material, to which a complete index affords ready access. There is much to praise and little to criticise. The book is one for both the immature and the advanced student. Particularly will it be found valuable as a ready reference by the country practitioner who, far from a skilled surgeon, finds himself suddenly called upon to perform an operation of life saving necessity. To such a one this book will prove a blessing. Many books there have been which claim the distinction of being written for the general practitioner, particularly, our brother of the country; but though Bickham does not put forward such a claim for his book, yet his is the first that has come to our notice that merits such a title. Every description is practical and is fully borne out by the illustrations. It is a book which every physician and surgeon would do well to read most conscientiously. Among some minor points there is room for honest difference of opinion, particularly in some of the author's comments, but certainly nothing radically at variance with the best surgical technique.

RUSSELL S. FOWLER.

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# BROOKLYN MEDICAL JOURNAL

VOL. XVIII.

BROOKLYN-NEW YORK, AUGUST, 1904.

No. 18.

## ORIGINAL ARTICLES.

### EXCISION OF THE THYROID IN GRAVES' DISEASE.

BY M. FIGUEIRA, M.D.

As a rule, the surgeon can give rational and scientific reasons for his operations; he can stand on logical grounds and demonstrate clearly the necessity and usefulness of his work. There are, however, cases when his procedures are more or less empirical and he has to rely for the justification of his work on experience and statistical results.

The operation that forms the title of this paper is an example in point and shows well how, in spite of the wonderful progress of medicine and surgery, our knowledge of the pathology and causation of many diseases is incomplete and rudimentary, and how surgical procedures based on such knowledge must be empirical to a great extent.

And to better understand and appreciate this and clearly realize the uncertainty of the rational and scientific ground upon which the practice of this operation rests, a consideration of the pathology of exophthalmic goitre is proper.

Since Graves in England and Von Basedow in Germany first described the disease, many theories have been advanced to explain it, but the scope of this paper will not permit mention or consideration of many of them, as they are of purely historical interest.

In a dissertation published in 1855 Koeber of Berlin first advanced the theory of the origin of Basedow's disease from lesions of the cervical sympathetic, and this view has been supported with various modifications by Aran, Trousseau, Benedict, Freidreich, Eulenburg and others to the present.

This theory is founded on the well known anatomical and physiological fact demonstrated by Bernard of the presence in the cords of the sympathetic in the neck of vasomotor fibres and also of excitomotor fibres that accelerate the action of

the heart by transmitting impulses to the cardiac ganglia as demonstrated by Benzold.

Now, it is a fact that some of the symptoms of Graves' disease can be explained by a paralysis of the vasomotor fibres of the sympathetic. The enlargement of the thyroid gland seems caused mainly by dilatation of the blood vessels. The bruit, the pulsation, the softness of the tumor, changes in size caused by the heart's action, the temporary diminution of size by compression, the enlargement of the vessels shown by pathological anatomy can all be explained by vasomotor paralysis. And "*mutatis mutandis*" the same can be said in regard to the exophthalmus. Besides, there are clinical facts pointing to vessel dilatation as the cause of exophthalmus.

Exophthalmus of the new born after tedious labor and of women under the same conditions, and that observed after convulsions and marked congestion of the head are certainly due to vessel dilatation.

When we come to the third marked symptom of Graves' disease, acceleration of the heart's action, the theory of vasomotor paralysis fails us. It is by irritation of the excitomotor fibres of the sympathetic that the heart's action is accelerated. We have then to suppose, assuming a disease of the sympathetic in the neck as the cause of Graves' disease, that the vasomotor fibres are paralyzed, and at the same time the excitomotor fibres are in a state of irritation. But above all is the impossibility, as pointed out by Eulenburg, of conceiving a permanent irritation lasting for years.

Such difficulties led Geisel and others to place the cause of Graves' disease in the medulla. Recently much experimental evidence has been presented in support of this theory. Filehne, Bienfait, Dardufi, by division of the medulla, including the rectiform bodies, found they could produce many of the symptoms of Graves' disease, including exophthalmus tachycardia, and in one case enlarged thyroid.

Munnheim reports a case of Graves' disease caused by a bulbar hemorrhage that disappeared as the clot became absorbed.

The fact, however, remains indisputable, as

stated by Murray, that in a majority of cases in post-mortem in Graves' disease no lesions of the medulla were found, and by the significant clinical fact that a good many cases of the disease entirely recovered.

Before going any further I will stop to consider a few points in the physiology and pathology of the thyroid gland.

From the experiments of Lanz, Christiani, Gley, Horsley, Scheiff and others on animals, and the observations of Reverdin, Kocher, Sandström\* in man, the fact has been demonstrated beyond doubt that the thyroid gland forms in its substance and secretes into the blood by the lymphatics, substances of great importance to the general economy of the body.

When from disease or operation the glandular structure of the thyroid is destroyed, the well-known symptoms of myxoedema soon develop. The mind becomes clouded and the nervous system benumbed and torpid. Circulation is sluggish and the heart's action retarded, the surface of the body is cold, rough and dry, and the skin is infiltrated and hard. When, however, in the treatment of these cases of myxoedema an excess of thyroid extract is used, as reported by Beclere, Marie and Johnston,† the change produced in symptoms is remarkable and instructive, especially in relation to the pathology of exophthalmic goiter. When in these cases large and increasing doses of thyroid extract are given, the pulse rate is increased to a hundred and twenty or thirty, and the patients complain of palpitation, and fine tremor is often observed as related by Murray; skin is moist and flushed, there is loss of flesh and restlessness, and he has seen exophthalmus produced in a case where ninety-two grains of extract were taken by mistake in nine days. In this connection I want to call attention to the fact that in exophthalmic goitre the condition of the thyroid gland is one of glandular hypertrophy, that the gland is in a condition as aptly stated by Murray similar to the breast during lactation, and that moreover there are good reasons, as Putnam states, to think that the thyroid secretion is not only greatly increased in amount, but changed in composition.

Another point of great importance in the pathology and causation of Graves' disease is the fact of the neurotic element always present in the disease. Preceding and underlying all the other symptoms, forming as it were a background for them all, this neurotic element of the disease has been recognized and studied from the time of

Graves and Basedow to the present time. Nervous people, the descendants of neurotic families, are frequently the subject of the disease; anything causing nervous exhaustion and neurasthenia predispose to it, and shock and deep emotion are well recognized as its frequent causes.

And this fact of the neurotic origin of the disease so well understood as a clinical fact, is of importance in relation to the pathology of Graves' disease when one takes in consideration the well known fact that important changes may be caused in the nervous centre by emotional causes. The dilated pupil of fear and the congested eye of anger are indices to the changes produced in brain by emotion, and the influence thus exercised upon distant organs is well understood. The evidences of arrested digestion found post-mortem in executed criminals, the secretion of saliva and gastric juice caused by smell, and the diarrhea and micturition of fear are all examples to the point.

This neurotic element forms, moreover, the strongest argument against the purely thyroidal origin of Graves' disease. It is a fact without doubt that neurotic symptoms often precede for a long time the thyroid enlargement, and that in many cases the first appearance of Graves' disease can be clearly traced to nervous shock or deep emotional causes.

On the theory of the thyroid origin of the disease these cases directly traceable to neurotic causes, forming a large class in any number of cases of Graves' disease cannot be explained or accounted for in a scientific and rational manner.

This, coupled with the fact that in well authenticated cases the other symptoms of the disease preceded the glandular enlargement for marked periods, form in my judgment the strongest argument against the theory of the thyroid originating the disease.

In discussing the pathology of Graves' disease the consideration of the statistical results of resection of the thyroid in the treatment of the disease is instructive, as the improvement so often seen after the operation is to be explained by attributing to the gland and its secretions an influence upon many of the symptoms of the disease. Heraskind, out of 53 cases had 47% cured and 11% only improved. Starrs reports 190 cases, 74 cured, 45 improved and 3 not improved. Kennicutt reports 187 cases, 60 recovered, 47 improved and 11 not improved.

The study of these and similar statistics found through the literature of the subject seems to indicate the usefulness of the operation as a cure

\* *Revue Medical de la Suisse*, 1882, p. 539.  
† *La Semaine Medical*, 1894, p. 101.



or means of relief in about two-thirds of all cases, and what is more to the point here, that the disease must depend on other cause for its origin, as the removal of the gland fails in many cases to cure, and in some does not even relieve.

From the discussion of the facts presented in this paper I believe one is warranted in deducting the following conclusions:

That in neurotic subjects especially, emotional and other nervous influences may cause changes in the nervous centres capable of influencing distant organs and initiating in them morbid processes.

That in such way the centres in the medulla are effected in Graves' disease, and as a result of this affection of the medulla the characteristic symptoms of the disease are developed.

That the changes so initiated in the thyroid gland cause an hypertrophy of its glandular tissue and an increase and alteration of its secretions.

That this increase and vitiated secretion constantly pouring into the blood has a tendency to perpetuate and aggravate the other symptoms of the disease, such as tachycardia, exophthalmus, as shown by clinical experience with thyroid extract and by the improvement of these symptoms after resection.

And that finally the operation of resection of the thyroid gland is justified not as a means of curing the disease but of removing a cause that, as demonstrated above, keeps up the symptoms of the disease and prevents nature and science from relieving conditions of the nervous system forming the origin and cause of the disease.

#### REMARKS ON TYPHOID FEVER.\*

BY JOHN HARRIGAN, M.D.

When attention was first called to the use of intestinal antiseptics in typhoid fever, their employment became general, and favorable results were expected; but experience proved that the duration of the fever and the percentage of mortality were practically the same as under other lines of treatment. This experience was disappointing; many became skeptical, and declared that intestinal antiseptics were valueless and should be discarded; while others, more thoughtful and conservative, expressed the belief that while antiseptics did not influence nor could they reasonably be expected to influence the bacillus that had already entered the lymph follicles, and gained lodgment in the intestinal wall, the mesen-

teric glands, or the spleen, it was quite reasonable to expect that intestinal antiseptics judiciously used might, to some extent, inhibit the development of the bacillus present in the alimentary canal, and there exercise a favorable influence on the ulcerations which constitute an element of so much danger in typhoid fever. This latter view is the one that I think should be accepted.

Bismuth salicylate was strongly recommended, as it is supposed to combine the virtues of bismuth salts with the antiseptic action of salicylic acid. The salicylate of bismuth probably passes through the stomach unchanged and is broken up in the small intestines, where it acts as an un-irritating antiseptic. It has certainly proved to be a valuable remedy in the diarrhea of typhoid fever.

Salol is highly recommended as an intestinal antiseptic. It is said to be a remedy of great value, capable of exercising a favorable influence on typhoid ulceration, that it favors healing of the ulcers and prevents reinfection; thus diminishing the liability to relapse.

In the early stages, if constipation be present, quarter grain doses of calomel combined with two grains of guaiacol, seem to have a favorable effect. Acetozone has recently been introduced as a remedy possessing very distinct antiseptic properties, and excellent results have been reported from its administration in the treatment of typhoid fever. In a number of cases I have used the drug, prepared as follows: fifteen grains added to a quart of water, which gives an opaque solution, that clarifies after a few hours. This amount was given the patient each twenty-four hours. It seemed to have a diuretic effect which was probably due to the water. It certainly had a marked effect in removing the offensive odor from the stools, and I believe it lessened the tendency to diarrhea and tympanitis. I am unable to say that it had any effect on the final result.

Our attention has recently been called to a new antiseptic under the name of alphozone. It is said to be both an antiseptic and a germicide. If it will accomplish all that is claimed for it, we will be thankful.

When adrenalin was added to our list of remedies, its marked hemostatic powers led some to hope that it would prove serviceable in the treatment of intestinal hemorrhage in typhoid fever. Further reflection seems to negative this hope; as it is now apprehended that when used systemically it may, by contracting the blood vessels in all portions of the body, increase the hemorrhage.

\*Read at a meeting of the Brooklyn Pathological Society, April 14, 1904.

I shall refer briefly to the pathology of typhoid ulcer, for the purpose of calling attention to an objective point in the treatment of typhoid fever patients. There are three distinct degrees of typhoid ulceration. The first comprehends involvement of the mucous coat; the second, involvement of the mucous and muscular coats; and the third, involvement of the mucous, muscular, and serous coats. If the ulceration be limited to the mucous coat, we have to deal with the disturbances incident to that condition; if the muscular coat be also affected, and a blood-vessel become eroded, we have hemorrhage; and if the serous coat be destroyed, we have perforation with its dire consequences.

The mucous coat of the intestines, as we know, is nearly always affected in typhoid fever; the muscular coat may or may not be, and this is also true of the serous coat. As we do not have perforation or rupture unless some portion of the serous membrane breaks down or gives away, it follows that all things that pertain to its yielding, as well as whatsoever relates to the reinforcement of its powers of resistance, are matters worthy of our most serious consideration.

After having devoted some thought to the subject, it occurred to me that the typhoid bacillus or its ptomaines may not be the immediate or direct cause of the rupture of the serous coat of the intestines, that there may be several causes, each of which contributes to the production of this undesirable result. The enervation which is held responsible for the gaseous distention of the intestines, and its consequent severe tension, may be, and probably is, a factor. The various products of heat combustion, which accumulate in the system as a result of the continued fever, are prone to exercise a deleterious effect on the serous membranes. The deposit of even the smallest quantity of these products in the vicinity of the threatened area may become a factor in causing the serous coat of the intestines to yield to the ulcerative process.

That the serous membranes are affected during the course of typhoid fever is proven by the fact that patients suffer from peritonitis without perforation, and that pleuritis sometimes occurs. Attention is invited to this possible contributing cause of perforation, in the hope that treatment may be intelligently directed to meet the indication, to the end that perforation may occur less often.

Experience proves that the serous coat of the intestines has excellent powers of resistance; it succeeds in resisting the ulcerative process in

from 92 to 98 per cent. of all cases of typhoid fever, and it does so without the aid of treatment, for treatment specially adapted and directed to the maintenance of the integrity of the serous membranes has not been practised. In view of this fact, is it unreasonable to expect that with proper treatment the resisting power of the serous coat of the intestines may be raised to 100 per cent.? If this can be accomplished, the result will amply reward the effort.

My remarks thus far relate to the means at our disposal that we use for the purpose of limiting or favorably affecting ulceration, thereby preventing hemorrhage and perforation. Statistics and experience show that hemorrhage does occur, and that 2 per cent. or more of all cases of typhoid fever suffer from intestinal rupture or perforation; that when perforation takes place, if we depend exclusively on medicinal treatment, a fatal termination is inevitable. This leads logically to the consideration of surgical treatment for the relief of the typhoid fever patients that suffer from perforation of the intestine.

In this connection it may be of interest to refer briefly to what has been attempted and what has been accomplished by surgical interference. The first operation that was performed for an undoubted case of perforation, from typhoid ulcer, was by Kussmaul in 1887. The operation was performed twelve hours after the appearance of symptoms of the perforation. The case terminated fatally. In the same year Bonticou of this State, unaware that the operation had ever been performed for this purpose, did the first operation chronicled in the United States. His patient died, but Bonticou insisted that operation does not impair, but certainly improves the chances of recovery. Since then, Dr. Westcott has collected eighty-three well-authenticated cases with sixteen recoveries, or 19.36 per cent. of cures and 80.64 per cent. of deaths. Murcheson estimates that the mortality of typhoid perforations in general is about 90 per cent., and in those in which general peritonitis supervenes after such perforation, it is 95 per cent. The above showing not only justifies surgical interference, but makes the outlook quite encouraging for still better results in the future.

Laparotomy, or abdominal section, is a grave and formidable operation under any and all circumstances; it is particularly so when performed on a patient sick with typhoid fever, and is to be justified only when a fatal result is certain without surgical interference. This makes the question of diagnosis one of the utmost importance.



The occurrence of perforation is indicated as a rule by the sudden onset of a severe continuous pain in the abdomen, accompanied by symptoms of collapse. The abdomen becomes distended and rigid with marked tenderness on pressure, and there is absence of liver dullness. The pulse is small and rapid, and there is frequently a sudden fall of temperature. Vomiting occurs, the face grows pale and pinched, and the breathing thoracic. If the peritonitis becomes general, the signs of prostration increase, and the patient gradually sinks in collapse. In some cases, these characteristic symptoms are not present, and perforation may exist without being suspected.

Leucocytosis is not of any value as an aid to the diagnosis of perforation. When perforation occurs, if a general peritonitis follows, the number of leucocytes in the peripheral circulation may be decreased by the out-pouring of white cells in the abdominal cavity. However, in the majority of cases a correct diagnosis is possible; and when made, the patient should get the benefit of surgical treatment.

#### MASTOIDITIS IN INFANCY AND CHILDHOOD.\*

BY WILLIAM C. BRAISLIN, M.D.

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The consideration of inflammations of the mastoid region in childhood involves the necessity of pointing out certain details of the anatomical structure of the ear and surrounding parts which differ materially in infants from the corresponding region in adults.

*Anatomical Peculiarities.*—The differences found in early life are important from the standpoint of surgical anatomy. They are perhaps of still greater significance in that they indicate the greater ease with which progressive inflammatory processes may extend in infants from the ear and its appendages to the cranial contents. The parts of the brain most likely to be affected by inflammations of otitis origin are of course those immediately adjacent to the petrous portion of the temporal bone; namely, the temporo-sphenoidal lobe, the cerebellum and the large intracranial venous sinuses in juxtaposition.

The relationship between the mastoid antrum and the cerebral contents is more intimate in early life. This is because of the more porous and less resisting state of the bones and the less complete juncture of the sutures. In infancy the

petro-squamous suture passes through the roof of the mastoid antrum, the aditus and the middle-ear cavity. Later, coincidently with the enlargement in the size of the brain the horizontal portion of the squamous becomes broader, the petro-squamous suture more completely closed, and usually the thickness of bone covering the antrum and tympanum becomes greater. Broca has noted that while at birth the *tegmen antri et tympani* corresponds to the point of union of the lower and lateral surfaces of the temporo-sphenoidal lobe it becomes in adult life the support of its lower surface only.

The mastoid process undergoes development during childhood. At birth it is scarcely appreciable, as a projection, to the eye or finger. It develops rapidly however. Pneumatic spaces usually appear in the mastoid by the third or fourth year. One may, however, demonstrate soft spaces in the mastoid process at least as early as the eighteenth month. These are the pneumatic spaces in process of formation, and through them infection is readily conveyed. They may be demonstrated, leading away from the mastoid antrum in various directions, outward toward the mastoid cortex, backward toward the posterior surface of the petrous and superiorly as well.

All parts of the bone are smaller in the infant excepting the middle-ear cavity, the ossicles, cochlea, semicircular canals—in short the essential part of the sound-perceiving apparatus—and the antrum itself. These are nearly or quite as large in the infant as in adult life. Compared with the infantile skull as a whole, the middle and inner ear are consequently larger and occupy comparatively more room in the base of the cranium than in the adult. The middle ear and mastoid antrum lie comparatively superficially, though as in adults, there is a wide variation both in the depth from the mastoid cortex and the size of the antrum, in infants. Surgically considered, operations on infants require appreciably smaller incisions in both the soft parts and in the bone to gain access to the cavities desired. On account of the thinness of bone, in the infant skull, the lateral sinus averages a considerably less actual distance from the antrum than in the adult.

One can not pass from a consideration of the important anatomical differences between the auditory region in infants and adolescence without referring to the inferior width in calibre of the external auditory canal of the former. At birth the upper and lower walls are practically

\*Read at a meeting of the Medical Society, County of Kings, Pediatric Section, April 8, 1904.

in apposition to one another, and this fact is frequently the cause of imperfect drainage of discharges from the middle ear in young subjects: while swelling of the walls of the canal from sub-periosteal or furuncular inflammations may render the canal practically impervious as a drainway for ear discharges.

*Etiology.*—The causation of many cases of mastoiditis must be attributed to certain unknown idiosyncracies and dyscrasiæ. It is evident, however, that influences affecting the hygiene of the Eustachian tube and middle ear predispose to mastoid involvement indirectly. Thus adenoid growths of the naso-pharynx and other

membrane of the throat and ear, render the latter susceptible to the attacks of micro-organisms of other species.

In tubercular mastoiditis, conditions of low vitality in the infant combined with unsanitary surroundings furnish the predisposing factors necessary to the successful propagation of the tubercle bacillus in any organ; the exciting cause of its attacking the ear and mastoid is only an object for speculation.

*Symptomatology.*—In young infants many early symptoms may be overlooked. Thus the first sign of mastoiditis in very young children who are not able to indicate their ailments by speech may be a suddenly appearing swelling just above and behind the ear. This is especially the case when no discharge from the ear has previously existed or has been noticed. In most cases the history is one of a severe type of ear-inflammation with earache and other symptoms, which, instead of subsiding on the occurrence of a discharge, persist and recur, with earache, headache and variable temperature. The discharge from the ear is apt to be profuse, but may be slight or absent.

In the presence of ear symptoms, with or without a discharge, close attention to the temperature chart is of assistance in arriving at a thorough understanding of the individual case. Thus a high temperature ( $104^{\circ}$  or  $105^{\circ}$  F.) changing rapidly to nearly normal or below and continuing variable is very suggestive of infection of the lateral sinus or jugular bulb.

The following symptoms have been observed in certain obscure cases in which the cause of the infant's illness was uncertain until the diagnosis of mastoiditis was arrived at: Attacks of loud crying, throwing backward the head, fumbling at or pulling at the ear. It may be observed in passing, that children of three or four years may complain of stomach ache when the trouble is really earache. It may be noted that children suffering with earache have a greater tendency to throw the head backward and to burrow into the pillow or against the nurse for the sake of warmth than have children with actual abdominal distress. The latter draw up the knees and squirm with pain. The early symptoms of mastoiditis in infants are largely those of acute middle-ear inflammation and only to be distinguished from the latter by the persistency, recurrence and severity of the symptoms. Symptoms of cerebral irritation occur in the later stages. The eyes may show abnormal reflexes while retraction of the head may indicate an already established meningel

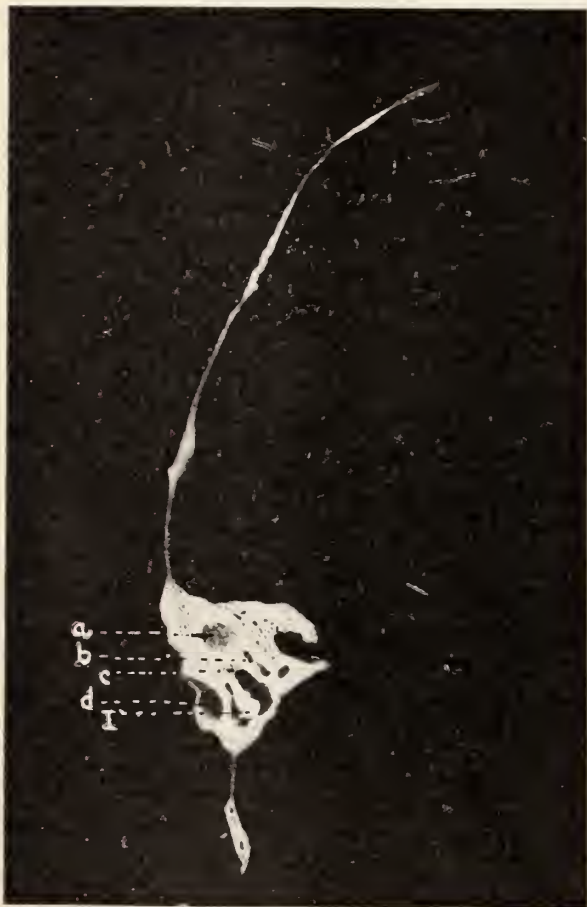


Fig. 1.—Horizontal section, life size, of infantile temporal bone cut above the level of upper border of the external auditory meatus. The body and long process of the incus (i) are cut through at same level and appear *in situ*. (a) Floor of antrum. (b) First turn of cochlea. (c) Aditus. (d) External auditory meatus.

abnormal states of the nose and throat in childhood may be properly regarded as predisposing causes of mastoiditis. Exposure and other conditions generally regarded as productive of acute inflammatory conditions are exciting causes; while the acute contagious diseases of childhood, first, by depressing the vital forces of the patient, and secondly, by directly affecting the mucous



complication. Vomiting or convulsions are likewise an indication that complications secondary to the mastoid inflammation may be present.

Acute inflammation of the mastoid antrum as a complication of middle-ear abscess, if unrelieved, usually proceeds to the formation of:—*Acute sub-periosteal abscess of the mastoid.* When not controlled during its earlier stages, mastoiditis proceeds more or less rapidly—sometimes in a few days, sometimes after several weeks—to the formation of acute sub-periosteal abscess. Infection may take place by pus burrowing beneath the periosteum of the external auditory canal wall, from the antrum and middle ear to the external surface of the mastoid, but is doubtless usually affected by progressive inflammation of the bone spaces between the inner and outer tables, extending until it reaches the mastoid cortex. Although on section of a normal infantile mastoid, one finds that pneumatic spaces, properly speaking, are lacking, yet between the inner and outer tables there exist spongy spaces—the future pneumatic cells, through which infection seems to be readily conveyed from the antrum to other portions of the bone, and by which, likewise, infection may be conveyed to the cranial contents or to the lateral sinus as well as to the outer mastoid surface.

Sub-periosteal abscess of the mastoid makes its appearance usually after several days of pain, restlessness and rise of temperature. Rarely vomiting may have occurred, or even convulsions. A flow of pus from the ear may or may not have occurred.

Swelling appears above, behind, and sometimes in front, of the ear. The ear is pushed downward and outward rather conspicuously, so that the head presents a peculiarly lop-sided appearance. The whole outer ear seems displaced outward and downward. The pain is apt to subside or occurs in shorter paroxysms, with the appearance of the external swelling. The temperature, however, remains elevated or runs an irregular course. The abscess thus formed may dissect the periosteum from the bone in a backward, upward, or forward, direction. Edema may be present in the cheek, over the scalp of the entire side of the head, or even extend beyond the median line; and later, pus may replace the edema. The cellular structures outside the periosteum become edematous, and later, the site of pus collections.

*Physical Examination of the Ear.*—In examining the ears of infants greater difficulty is met with than in adults. At birth, the

upper and lower walls of the external auditory canal are practically in contact with each other and the drum membrane is placed on a nearly horizontal plane. The upper walls of the canal and the drum are thus on a nearly continuous plane, the angle formed by their meeting being very obtuse.

In examining the ears of infants one should pull the lobe of the ear strongly downward with the fingers of the hand which is holding and directing the speculum. This procedure draws the lower wall away from the upper and affords sufficient space to allow a clear view of the drum, though it is seen even then at a considerable angle and cannot be looked at vertically; though by tilting the head of the patient away from the observer a more nearly vertical view is obtained.

*Diagnosis of Mastoiditis of Infants.*—It is proper to assume that some degree of inflammation of the antrum exists with all severe infections of the attic. On examining the ear the posterior superior quadrant of the drum membrane is found red and bulging; or if it has spontaneously ruptured, it presents the typical teat-like swelling indicative of inflammation and edema of the mucous membrane of the attic. At this stage, before any external swelling is present, it is often difficult to determine the proper course of procedure, since mastoid inflammation with intracranial symptoms often develop no external swelling. At this time the appearance of the tympanic membrane and the severity of the ear symptoms must be the chief guides.

Recourse to bacteriological examination of the discharge is frequently of value in determining the indication for or against an operation. In the routine examination of cases in the New York Eye and Ear Infirmary it has been demonstrated that the virulence of the infection varied with the organism. In spite of preventive treatment, almost all cases of mastoid inflammation due to the streptococcus came to operation; those in which the pneumococcus was found required operation in one-half the cases; in those due to the staphylococcus the mastoid operation was rarely required.

Tenderness about the ear, especially over the antrum, is significant, if present, but the presence of a point of tenderness is often difficult to elicit in infancy.

A rapidly changing temperature, reaching at times a high point, rarely in childhood beginning with a chill or a convulsion, is significant of involvement of the lateral sinus or jugular bulb. On the other hand, phlebitis of the jugular

has been observed to be quickly followed by pneumonia, which complicates the situation and masks the typical course of the original disease.

Necrosis of the mastoid bone in the direction of the sinus may lead to an invasion of this structure with the gradual formation of an infective clot. The dura covering the sinus resists these inroads for a time with apparent success, for it is quite a common experience to find at this point the surface of the sinus the site of an abscess, while the vessel beneath is uninjured. In infants an infection of the sinus is marked by restlessness and a marked rise of temperature. In adults the invasion is ushered in by a chill.

Abscesses of the cerebellum are not a rare result of inflammation extending from an infected clot in the lateral sinus.

*Complications.*—The two points through which infection is most likely to extend from mastoid antrum abscesses to the cranial contents are the tegmen tympani and the wall of the lateral sinus. The thickness of the bone is least in these directions, and consequently least resistance to inflammatory action is here met with.

In infants perhaps the most common intracranial complication is meningitis; either leptomeningitis or tubercular meningitis. Autopsies occasionally disclose the track of both these forms of meningitis to have occurred by way of the middle-ear, and the writer cannot too strongly emphasize the need of strict attention to the ears of infants affected with acute otitis, especially during the course of acute contagious disease.

*Tubercular Meningitis.*—Cases of tubercular otitis subsequently involving the mastoid antrum and terminating in meningitis are not rare. The writer has seen several typical cases. The course to a fatal termination is favored by the less dense structure of the bone in infancy. The inroads made by the disease in the children living in poor and unsanitary quarters, before the parents regard them as really ill, are almost incredible. The disease may, however, progress without apparently very pronounced symptoms. Discharges from the ear, which, it seems, often drive the parents of the poor to the hospitals and clinics because of the foul odor, in tubercular otitis are often almost odorless. Apparently in this class of patients the discharge is often entirely overlooked since it is a common experience to find that they are ignorant of it when the child is presented at the clinic.

*Facial Paralysis* is one of the uncommon complications of mastoiditis in young children in the

experience of the writer. A case occurring in a child of six months of age with tubercular mastoiditis is pictured below. In this case at the first examination of the patient the incus of the affected side was found unattached in the external auditory canal. The removal of this obstruction furnished free vent to the inflammatory discharges; but the other side shortly developed in rapid sequence suppurative otitis media, subperiosteal mastoid abscess and meningitis. I am indebted to Dr. A. C. Brush for his courtesy in making the photograph.



Fig. II.—Facial paralysis due to necrosis of the Fallopian aqueduct and destruction of the seventh nerve at the inner wall of the middle ear in child of six months. By covering the expressionless features of the left side it is seen that the infant cries.

The lepto-meningitis of otitic origin differs in no respect from that due to traumatism or other sources except in such symptoms as are occasioned by the previously existing disease.

In localized ulceration of the brain, in epidural and subdural abscesses, more or less localized or general meningitis is present; so that the differentiating symptoms may be difficult to recognize. The predominance of lepto-meningitis occasions high fever, photophobia, cephalalgia, rapid pulse and respiration, retraction of the head from contraction of the muscles of the spine, delirium and stupor. When the collection of pus is localized (brain-abscess) and sufficient to occasion pressure of the intracranial contents, a slower pulse, more variable temperature, profuse sweating and a septic appearance are the rule.

*Treatment.*—Preventive treatment of mastoiditis in children consists in free and frequent syringing of the ear when a discharge exists in an acutely inflamed ear; and in freely incising the drum, behind which, on examination, pus is observed to be exerting pressure in those cases in which no discharge exists. Pouting perforations of the upper and posterior portion of the drum, which may be regarded as often on the border



line of mastoid inflammation, may likewise be incised with benefit when it is found that the perforation is insufficient to carry off the inflammatory products.

Active treatment consisting of operative interference should not be delayed too long, especially when restlessness and pain continue. A discharge, however insignificant, is a symptom not to be disregarded in infants when recurring attacks of pain point unmistakably to the presence of active inflammation in a region where the escape of inflammatory products is fraught with so many unpleasant possibilities.

*Operation.*—In operating for simple mastoiditis of infants it is proper to make the object point, first of all, the mastoid antrum. Some cases, it is true, recover with simple incision of a sub-periosteal abscess. But the percentage of thorough recoveries must be few, relapses many, and the establishment of chronically discharging bony sinuses are common results of this unscientific treatment. In most cases a suppurative process is present in the antrum from which a continuing rarefying osteitis may extend in any direction with a possibility of the cranial contents becoming ultimately involved. The mastoid antrum should be entered in every case in which an operation is performed. Having once entered the mastoid antrum, free drainage may be established, necrotic material may be thoroughly removed, and one has the satisfaction of thoroughly understanding the state of his patient. Chronic suppuration of the middle ear is otherwise about the least harmful condition which is likely to result from a mastoiditis which is not thoroughly operated upon.

## PROCEEDINGS OF SOCIETIES.

### THE MEDICAL SOCIETY OF THE COUNTY OF KINGS.

STATED MEETING, MAY 17, 1904.

The President, J. E. SHEPPARD, M.D., in the Chair.

PAPER: HOW FAR SHALL WE TREAT THE GALL-BLADDER AS WE DO THE APPENDIX?

BY DR. RICHARD W. WESTBROOK.

#### *Discussion.*

DR. L. C. AGER: Of course the general subject of the paper I do not consider myself com-

petent to discuss. One of the incidental remarks caused some question in my mind: the statement was made that gall stones introduced into the gall bladder of healthy dogs were dissolved after a short period. I would like to know whether these gall stones were first obtained from the gall bladders of dogs or from the gall bladders of human beings. From what we know of the special actions of glandular secretions, unless these gall stones were obtained from dogs, we could draw no conclusions as to the fact of their being dissolved, because the gall of the dog might dissolve the stone of the human being, whereas the bile from the human being would not dissolve the gall stone from the human being.

DR. R. W. WESTBROOK: I cannot answer that question just as the Doctor has put it. All I know about these experiments is, that they were made by a physiologist of note, and I presume with all precautions and with just these points in mind that he has mentioned. The result of these experiments have been published in the Journal of Physiology within the past year, but I have not had access to the original article. That is a point that also occurred to me and a point which I wished to look up, but as they were made by a physiologist of note, I presume the facts and views adduced are of value. I think it very possible as the chemical composition is similar, that the gall of the dog might dissolve human gall stones, but I am not at all sure of that. It is a very pertinent question.

### THE MEDICAL SOCIETY OF THE COUNTY OF KINGS.

STATED MEETING, JUNE 21, 1904.

The President, J. E. SHEPPARD, M.D., in the Chair.

The meeting was called to order and the minutes of the previous meeting read and approved.

There were about 100 members present.

#### REPORT OF COUNCIL.

The Council reported favorably upon the following application for membership:

Eudora Pierce, Woman's Med. Col.

#### APPLICATIONS FOR MEMBERSHIP.

Applications have been received from the following:

Oliver M. Dewing, L. I. State Hospital, Brook-

lyn, P. & S., 1887. Proposed by Wm. Browning; seconded by Membership Committee.

Arthur J. Capron, L. I. State Hospital, Albany Med Col., 1894. Proposed by Robert M. Elliott; seconded by Wm. Browning.

Thurston G. Dexter, 411 Hancock Street, L. I. C. H., 1901. Proposed by John C. Cardwell; seconded by J. H. Raymond.

Charles S. Cochrane, 400 Vanderbilt Avenue, L. I. C. H. Proposed by W. A. Northridge; seconded by E. H. Bartley.

W. B. Brader, 1195 Bushwick Avenue, Univ. Penn., 1885. Proposed by Alfred Bell; seconded by Tracy Clark.

J. A. Longmore, 26, Schermerhorn Street, L. I. C. H., 1901. Proposed by J. A. McCorkle; seconded by Membership Committee.

#### ELECTION OF MEMBERS.

The following having been duly proposed and accepted by the Council were declared, by the President, elected to active membership:

R. M. Rome, L. I. C. H., 1901.

E. C. Sullivan, Harvard, 1903.

W. T. Raub, L. I. C. H., 1897.

R. Byington, P. & S., 1900.

P. V. Costello, Yale, 1901.

#### HONORARY MEMBERS.

Dr. C. K. Mills of Philadelphia and Dr. Thomas Darlington of Manhattan were elected honorary members.

#### RESOLUTIONS.

The following resolutions adopted by the Council were read by the Secretary:

*Whereas*, The Medical Society of the County of Kings is and has been for many years firmly convinced that there should be a systematic enforcement in the said County of Kings of the provisions of the Public Health Law relating to the practice of medicine, as well as the provisions of other laws, affecting the public health generally; and

*Whereas*, The said Society has from time to time endeavored systematically to enforce this law, but each time has been compelled to cease its efforts for the protection of the public health by reason of a lack of funds; and

*Whereas*, The said Society has not the means to carry on a systematic enforcement of the laws affecting the public health; and

*Whereas*, Such work is of a public character and properly chargeable to the public authorities; and

*Whereas*, Precedent exists for the appropriation of public moneys to private societies engaged

in enforcing the criminal law; Now, therefore, be it

*Resolved*, That the Medical Society of the County of Kings, through its committees named below, petition the constituted authorities to enact a law or laws appropriating public moneys whereby the said Society can carry on the work of enforcing the laws designed to protect the public health. Be it further

*Resolved*, That the committee consist of Drs. H. B. Delatour, David Myerle and H. A. Arrow-smith, together with Dr. John E. Sheppard, President of the Society, and the Counsel of the Society. Be it further

*Resolved*, That the said committee be empowered to prepare the necessary act or acts, petitions, memorials and necessary printed matter of every kind, to bring about the end proposed, and to employ such other and further means as to the committee may seem expedient. Be it further

*Resolved*, That the committee is instructed to work in conjunction with a similar committee appointed by the Medical Society of the County of New York for a like purpose, on Monday evening, May 23, 1904.

On motion, duly seconded and carried, the resolution was adopted.

The following resolution was also received from the Council.

*Resolved*, That the Medical Society of the County of Kings retain Champe S. Andrews, Esq., to assist the committee appointed pursuant to a resolution adopted on the 21st day of June, 1904, by this Society, for the purpose of securing the appropriation of public moneys for the enforcement of the laws affecting the public health.

On motion, duly seconded and carried, the resolution was adopted.

Dr. C. C. Henry presented a resolution, regarding a recent Supreme Court decision relative to drug substitution by pharmacists.

Dr. F. E. West moved that the matter be referred to the Council for consideration. Seconded and carried.

A vote of thanks was unanimously tendered to Dr. H. L. Elsner for his courtesy in coming to this city to read a paper at this meeting.

#### SCIENTIFIC PROGRAM.

1. Paper: A Method of Distinguishing Progressive Cerebral Hemorrhage. By Dr. William Browning.

Discussed by Dr. Barber.

2. Paper: Pain, Anomalous in Location and Character, in the Diagnosis of Some of the Dis-



eases of the Abdominal and Thoracic Organs. By Dr. Henry L. Elsner, Syracuse, N. Y.

Discussed by Drs. McCorkle, West and Cruikshank.

Adjourned.

W. C. WOOLSEY,  
Associate Secretary.

## BROOKLYN PATHOLOGICAL SOCIETY.

449TH REGULAR MEETING, APRIL 14, 1904.

HENRY G. WEBSTER, M.D., Editor.

The President, J. C. MACEVITT, M.D., in the Chair.

### PRESENTATION OF SPECIMEN WITH HISTORY: MULTILOCULAR OVARIAN CYST.

DR. J. C. MACEVITT: The patient from whom this specimen was removed is 23 years of age and single. Her menstruation had been irregular up to the age of 20, but was regular after that time.

About January of this year she noticed that her abdomen was becoming larger, although she had no pain. A few days before operation she began to have pain in the abdomen and in the lower right side, with marked tenderness. She continued to grow worse, and the swelling in the abdomen increased. The abdomen presented a round, dome-shaped elevation and looked like that of a woman at term. Dullness in left flank and tympany in right. Marked fluctuation. Vaginal examination showed a large swelling to the right of the uterus.

Operation: March 29th. A large cystic mass was found occupying the left side of the abdomen and pelvis. A trocar was introduced and fluid withdrawn. Daughter cysts were found in the interior and these were opened. The sac here presented was removed.

DR. F. J. SHOOP: Was there anything carcinomatous about it, or was it a simple cyst?

DR. J. C. MACEVITT: There was nothing of a carcinomatous character. It was simply a fibrocystic growth, and the most interesting feature of the case was the presence of fever, which had existed for a week or more, ranging from 100° to 103°. It only could be accounted for by some degenerative process going on in the tumor at the time.

### PAPER: SOME REMARKS ON TYPHOID FEVER.

BY JOHN HARRIGAN, M.D.,

#### Discussion.

DR. F. E. WEST: In my own personal experience I remember but one case of perforation occurring under my immediate supervision. It was in one of the Spanish-American War soldiers who had convalesced and was allowed to sit up. He was doing very well and there was every reason to believe that a return to health would be assured. A fresh company of soldiers came to the hospital, and the room which he was occupying in the ward was needed so much, that he was moved to another part of the hospital. Of his own volition and without the knowledge of any one he picked up a heavy satchel, carried it down three flights of stairs, and on reaching the foot of the stairs was seized with a severe pain. Perforation took place and operation was resorted to with fatal result.

I have seen several cases of perforation in consultation but they were all *in extremis* at the time, and the patients were not in a condition for us to consider the question of operation. They would hardly have become anesthetized before a fatal issue would have been the result.

Certainly the statistics as we have them would seem to commend the operation in the cases in which this accident happens and there is any warrant at all in doing anything. The view of surgeons, as I understand it is, that the operations are more successful where a sufficient time has elapsed for the patient to have rallied somewhat from the shock. I believe that the consensus of opinion among surgeons is from 12 to 24 hours after the rupture is a better time to operate than immediately. Where operation has been performed at such time the mortality is much less than where it is done immediately. In my own personal experience I have not encountered perforation, except in this one case, which could hardly be attributed to anything but pure accident.

It seems to me by our medication we can accomplish a good deal, and by proper care of our cases lessen very materially the liability to this accident. As the reader of the paper has said, most of our intestinal antiseptics have been disappointing. The bismuth preparations certainly are so. In such a disease as typhoid fever, personally I dislike very much any of the bismuth preparations. Bismuth if used for any length of time acts in anything but a sedative way to the mucous membrane. In a great many instances

it becomes a decided irritant, and I think where bismuth has been employed for a considerable interval, the experience of many of us will confirm the statement, that there is very apt to be a very irritable condition of the gastro-intestinal tract. This may possibly be due to the fact that many of our bismuth preparations are impure; possibly to the fact that the action is purely local, and that it smears the inside of the gut with material, which lying there, simply irritates.

Of course the combination with the salicylates is an advantage: still you have the bismuth, which, as I said before, to my mind, is objectionable.

There are the various other so-called intestinal antiseptics, such as thymol, naphthalin, etc. Salol, which has been spoken of, in my hands is exceedingly satisfactory. I think I can say without exaggeration that I have used salol in some hundreds of cases of typhoid fever, and that I have used it without any unfortunate results such as may be anticipated from its combination. Of course, there is 40% of phenol in salol, but notwithstanding the fact that I have had patients take it in five grain doses every four hours for a considerable interval, I have never had an instance where it has occasioned any renal irritation, although it may have produced some urinary discoloration, nor have I ever seen any unfortunate results subsequently from it. Salol may not have any special influence upon the etiological factors of the disease, but it certainly has a decided influence upon fermentative changes taking place in the intestinal tract.

Tympanites is a phenomenon which I rarely see now in a case which has been under observation from its inception. I attribute this fact to the use of this agent, which I put my typhoid fever patients upon and maintain throughout. If we avoid the distention which comes from fermentation, we certainly lessen the tension upon which the intestinal wall is put, and hence modify or limit the depth of slough which may take place in the involved patch. If that tension is decreased, naturally perforation is not as likely to occur. If it will do that, certainly we have a remedy of service. That it has any specific influence I would not contend for a moment. It will not prevent a tendency to relapse at all, but it does modify the tympanites.

The dietary is an exceedingly important matter, making use of such foods as do not give rise to fermentative changes, i.e., such foods as are not likely to decompose.

The use of laxatives is employed by some. I

must say that I feel a little sceptical about them. I have seen cases of typhoid fever with gentlemen who employ them and who have success with them. There is a gentleman in this city with whom I have seen several cases of typhoid fever who employs laxatives more or less throughout the whole course of the disease. His results are good. I should feel I was treading very thin ice to undertake it. I have not the courage, for it seems to me from the very pathology of the disease, that we do not wish to employ agents which are going to encourage much peristalsis, for the reason that by so doing we increase the liability to perforation. I much prefer to secure intestinal elimination by means of the old fashioned enema, which is used certainly every other day and in the majority of instances every day in cases where there is a tendency to constipation.

Adrenalin has been spoken of as an agent for the checking of intestinal hemorrhage. If employed internally the subsequent effect of adrenalin is vascular dilatation, and, as you would expect, there is a liability to a recurrence of hemorrhage if it be temporarily checked by such an agent. I believe that in old fashioned turpentine we have about as good an agent as modern materia medica has produced to meet this accident. Turpentine and opium are good; the two combined—enough opium to restrain peristalsis, and turpentine for its influence upon the vessels and circulation.

The treatment of typhoid fever is an exceedingly interesting subject, and one which involves a great deal of thought. The subject is so large that one knows hardly where to begin or where to leave off.

Taking the subject-matter of the paper as a text, it certainly would seem that we must conclude with the writer of the paper that in those unfortunate cases where perforation does occur, inasmuch as we have nothing that is going to relieve them, so far as the physician goes, we must, as we are obliged to in so many instances, turn them over to our surgical brothers, notwithstanding the fact that he is encroaching upon our territory continually. We know that in selected cases operation may be successful. There is little doubt that the mere fact of a laparotomy is not so formidable. The trouble is that in a majority of cases of typhoid where this accident has occurred, the patient is so debilitated and in such a depressed condition physically and vitally that there is little for him to fall back upon. In my own experience I have had two cases of appendicitis



complicating typhoid fever, both of which were operated upon and both of which got well. Both of these cases occurred in the early days of the fever and they were in pretty good physical condition to stand such an operation.

I believe that where there is much shock and where the patient is not moribund, that it is certainly our duty to resort to such a means for the relief of this condition, which would be hopeless if the surgeon were not called to our relief.

DR. J. FUHS: Dr. Harrigan's subject leads up to perforation and its treatment and the medical treatment of typhoid fever. Medical treatment which tends to diminish the growth of the bacilli or to destroy them is to be considered.

The remedies that have been used recently, the so-called newer remedies, have not given way to the old remedies, because they do not seem to be much more efficacious than the old ones. The old remedies were calomel in the beginning of the attack and quinine during the course of the disease, and I still think there is great value in these remedies. We all have come back to calomel more or less after discarding it for some quite some time, and I think I can still see in calomel in the beginning of the disease a remedy that will influence the course of the trouble favorably. Often during the course of the disease it can be given with some benefit in smaller quantities, of course, than in the beginning.

Quinine is a valuable remedy, because we have to deal not only occasionally, but frequently, with a combination of malaria and typhoid fever, but also because quinine has a distinct effect on the intestinal muscles. It lessens peristalsis. We all know how the surgeon gives quinine in tympanites after operation. You may say this is the tympanites of shock—it is not the tympanites of infection. Still it is due to a weakened muscle at the time, and the quinine acts on the pulse to restore its muscular activity. It is certainly a valuable remedy in this direction. Aside from that, quinine is more or less of a general tonic and it has an antipyretic effect, so that we have in quinine a valuable remedy in typhoid fever. I know the old practitioners here in Brooklyn did give quinine a good deal all during the whole course of the disease. I think I can say there was value in it.

As to the newer remedies from acetozone to adrenalin, to aspirin, lactophenin, etc., I think there may be some action in each, if given very carefully, and there may be a great deal of harm done if not given with some care. They are not

as soothing as the remedies I mentioned before. The various elements that Dr. Harrigan mentioned that come into consideration in the occurrence of perforation: Both Drs. Harrigan and West mentioned the important element of traumatism—I mean a sudden muscular exertion; this, together with the tympanites tending to produce perforation. This is certainly a very powerful element, especially if we consider perforations occur in mild cases, as well as severe ones, and so much so because there would be more limitation to muscular violence.

On the other hand perforation occurs with a flat abdomen, even with a retracted abdomen, so that the element of tympanites does not always come into the consideration. I saw such a perforation only a few weeks ago. The patient was brought into St. Catherine's Hospital in an unconscious condition, and at the post-mortem the perforation was found. There was a retracted abdomen, so the tympanites does not form an important element in perforation at all times.

As to the treatment: The first case of perforation I saw was in a young man about 30, and it was an earlier perforation than usual—at the end of the second or beginning of the third week. Dr. Jacobi was called in consultation, and he said it was a perforation and gave a prognosis accordingly. This man recovered. This is the only case I have ever seen that recovered. The rest either died or were operated on and died. So far I have seen no recovery from any operation. There were only two of my cases operated on, and I can not judge. One case was operated on within the first twenty-four hours. The shock had somewhat subsided, but unfortunately this patient was removed to a hospital, and I think that must not be done, no matter how great the advantages of the hospital. I think that is a case *par excellence* that should be operated on at home.

The other case did not present anything special. It had the usual loss of percussion area of the liver and the pain was in the right hypochondrium. In the case that was operated on there was no vomiting. It simply had cold extremities, tympanites, small pulse, and became drowsy and comatose, but he did not vomit. The others had vomiting as a prominent feature. I will in spite of all that advise my patients to be operated on.

DR. J. C. MACFITT: In the administration of quinine, do you give it for the tonic effect or for the reduction of temperature?

DR. J. FUHS: The quinine is given for the

antipyretic effect; for the stimulating effect on the intestines and as a general tonic. My chief aim is to produce an effect on the muscles of the intestines—a muscular tonic to prevent tympanites.

DR. J. C. MACEVITT: What is your experience with it in the reduction of temperature?

DR. J. FUHS: There is a decided reduction in temperature. It must be given in good doses. From one to two drachms has been given in a short interval. It must be given, not in divided doses, but in a single or two doses and closely following each other—not more than an hour apart. The smallest dose would be 15 and the largest dose 30 grains.

DR. J. C. MACEVITT: Would you administer quinine in a hemorrhagic case?

DR. J. FUHS: I have never given it just then. I would not want to have muscular contraction at that very moment.

DR. A. R. MATHESON: I congratulate Dr. Harrigan on the excellence of his paper.

I believe the basis of aggression of the disease to be the intestinal tract. Of course, we know wherever the circulatory medium—the blood—reaches all portions of the body, that there we have an active aggressive bacilli.

Turpentine has been mentioned, and I must confess that I am wedded to all the remedies that are usually employed along the intestinal tract. Turpentine is one of the oldest remedies, and to my mind is one of the best remedies. It moistens the tongue, it prevents meteorism and it gives the patient a great deal of comfort. How far it acts as an intestinal antiseptic I can not say, but I believe it to be one of our best preparations.

Salol I have used for a number of years, and I believe it to be of decided benefit. I use it in small doses,  $2\frac{1}{2}$  to 3 grains, and frequently combine it with 2 to  $2\frac{1}{2}$  grains of quinine. Twenty or twenty-five years ago I used quinine occasionally as an antipyretic, giving 10 or 15 grain doses, but it appeared to me that the effect of quinine in these large doses was attended by a reaction that was decidedly depressive and injurious to the patient. I have the same opinion of all antipyretics of a medicinal character—the coal-tar products I think are also very injurious. When I give quinine I give it for its tonic effect and in small doses.

The bismuth preparations I used some time ago, especially the subgallate, but so far as results were concerned, I can not recall any benefit from them. Lately I have been using the carbon-

ate of creosote to a considerable extent with or without turpentine, as the case might be, and we have a formula of one drop each of tincture of iodine, creosote and carbolic acid, repeated at intervals of three or four hours. I think that we get some benefit from that.

Acetozone I have used in twenty or thirty cases. I have used it after the method of the Buffalo and Chicago hospitals, 15 grains to a quart of water, and prepared as Dr. Harrigan described. In three cases I observed frequent attacks of syncope, which were very alarming, and I could not account for it as due to any other cause than the acetozone. I looked for intestinal hemorrhage and perforation and all the other conditions that would give rise to syncope, but I had to exclude these conditions, and finally came to the conclusion that it was the acetozone. In all these cases I stopped the acetozone after this condition had been repeated two or three times, and the syncope ceased. I am not using it very much at the present time.

Hemorrhage in my experience has been the cause of the greatest mortality, and in these cases I use cold applications on the abdomen if there is not too pronounced shock. Opium is a useful remedy, and where the hemorrhage has been continuous and gradual I have used acetate of lead in conjunction with opium. I have also used ergotole, and I believe with decided benefit, giving it hypodermatically in 20 minim doses. Some maintain ergotole is not the best remedy, as it may raise arterial tension, but this has not been my experience.

Adrenalin has been referred to. I have used adrenalin in two cases of intestinal hemorrhage. I believe it is a remedy entirely useless and injurious as well. In the first place, if we could reach the bleeding surface it probably would be of some use, but that is an impossibility, as it undergoes chemical changes before it reaches the point of ulceration. In addition it is not absorbed by the mucous membrane, and if we use it hypodermatically it so blanches the parts that it is not absorbed, and it remains an unwieldy agent, as it is apt to raise arterial tension and, of course, have a tendency to produce more hemorrhage.

The subject of perforation is perhaps one of the most trying to the physician. I have had a more unfortunate experience than Dr. West. In my practice hemorrhage has led in mortality, perforation of the intestines next, and cerebral complications third, and but few have died as the direct result of hyperpyrexia.

The first point I think is in being sure of your



diagnosis in perforation. I have had two cases that presented all the symptoms of perforation that recovered. Dr. Fowler saw one case with me and confirmed the diagnosis. Dr. Skene saw the other with me and also confirmed the diagnosis. I have seen so many fatal cases that I sometimes almost distrust our diagnosis in these two cases, and am somewhat inclined to believe that perhaps we were mistaken, although the symptoms were well marked.

We have no pathognomonic symptoms of perforation. The blood count is not a determining factor, as it has been found this may vary from 4,000 to 50,000 leucocytes without perforation being present. The evidences of a point of sensitiveness, of muscular resistance, of altered respiration, of alterations in the rate and quality of the pulse, systemic shock, obliteration of liver dullness and the blood count decide the diagnosis. It seems to me that pain is the most important of all the symptoms. We find it usually occurring suddenly near the umbilicus, or in the lower part of the abdomen, in the median or to the right of the median line. If this continues for some little time, in the absence of previous abdominal disturbances, we should look for the other symptoms very closely.

Another symptom I would refer to is the muscular resistance. In hemorrhage this is not marked, but in perforation the abdomen seems as if it were about to protect itself when you press upon it, and you find that resistance well marked. Then, if we had proper data of the condition of the blood before this attack, we would probably find that the reduction in hemoglobin and in red cells perhaps would be a pretty strong evidence that we had perforation, but it is the aggregate of all these symptoms that we must rely on, and having made our diagnosis it seems to me there is only one thing to do, and that is to operate.

In my record of cases I have had three operated on, and all died. These are not very satisfactory statistics, but death was inevitable if the operation had not been performed, and there was a chance to save their lives by operating.

When should operation be performed? Dr. West has said that the surgeons recommend during the second period of twelve hours. My personal views are that the patient should be operated on as soon as we can clearly diagnose our case and can get the patient in the best condition by relieving the shock as much as possible. This, of course, can be done by the usual methods, which should include a saline infusion, avoiding

the usual heart stimulants that are so frequently employed in these cases. Then, it seems to me, we can give the patient the very best opportunity if we operate as early as possible. If we wait twelve to twenty-four hours we have a septic peritonitis established without doubt and we lose valuable time. To operate during the profound shock is out of the question, but as soon as you can get the patient in condition, whether it is twenty-five hours or three hours, I think it is advisable to operate. The cases that I have lost have been in the second twelve hours. Two were operated on about twenty-four hours after the perforation, one eighteen hours after perforation, and they all died of septic peritonitis.

High temperature yields best to hydrotherapy. Sponging with water and alcohol, the tub bath, the rubber ice coil, and in some cases that resist these methods, cold rectal irrigation after Kemp's method. Hydrotherapy gives me the best results in delirium and the various other nervous disorders.

DR. F. J. SHOOP: My experience has not been very great, but what little I have had has encouraged me to follow out the line I have adopted in treating these cases. There are two or three things to be considered. One is the production of the bacteria, another is the absorption of the toxine, and the third ulceration or perforation.

When we are called in to these cases the patient has the ascending type of fever, has little or no appetite, and may have begun with a little diarrhea. To begin by overwhelming the patient with opiates and locking up the products of the intestines to stay there and ferment, it seems to me, is bad practice. All the material in the bowels should be eliminated. They get along better without food for twenty-four hours, and my practice has been to give them a good dose of magnesium sulphate to wash the bowel out. It is not irritating; and has the double effect of washing out the excreta in the bowel and causing a certain amount of squeezing out of the spongy material of the mucous membrane. In that way it may wash out a large number of colonies of germs that are there, and cause the remainder to lose a good deal of their virulence. If you can keep up that effect on the bowel, it must lessen to a great extent the deleterious influence of the disease.

In any case, I first allow only beef juice or beef extract, following with gelatins and peptonized milk. I think unprepared milk produces cheesy deposits, which adhere to the sides of the intestine, increasing the irritation and perhaps

forming a good incubation material for the growth of the germs.

I have given, not for anti-pyretic effect but for antiseptic effect, the carbonate of guaiacol in 4 or 5 grain doses with each feeding. It helps to prevent the food from being a good culture mass for the germs. In that way I think we would see a very small number of severe ulcerations, if we were to keep up that effect.

About early or late operations, it seems to me the quicker you get into that abdomen the better the chance of recovery. In a recent number of *American Medicine* there is a report of over 100 operations. A great many were done during the state of shock, and it said it did not increase the danger of recovery.

I have never seen anything that would clear the red, dry tongue better than magnesium sulphate in small doses.

DR. J. HARRIGAN: First I want to approve and emphasize the point made by Dr. Fuhs as to the inadvisability of removing patients from their homes, no matter what their accommodation may be, when they are in a condition of shock from perforation, or in fact in the advanced state of the disease in any way. I think the fatigue incident to the change and transfer materially lessens their chance of recovery, and that practice should be discouraged as much as possible.

In regard to Dr. Fuhs' recommendation of the use of quinine in 15 or 30 grain doses, I am inclined to believe that it is the consensus of opinion that in typhoid fever quinine does not control the pyrexia, and in doses of that amount it may have a dangerous depressing effect on the heart muscle.

In regard to the beneficial effect of quinine upon the muscular fibre of the intestine, I think the general belief is that strychnine is much better in small doses.

As for turpentine, I think the profession generally know all about its value. It was first introduced by Stokes of Dublin and later by Wood of Philadelphia. I believe the result of experience is it is very serviceable in mild cases. That it has any influence over the desperate cases that lead up to perforation is not admitted. It has not any.

I am very much pleased with what Dr. Shoop pointed out in the matter of diet. I was in hopes the Doctor would talk at a little greater length about the diet and elimination. The point I tried to raise, and in fact it was the only point that my remarks had, was the endeavor to protect, or reinforce if you will, the integrity of the serous

coat of the intestines, and incidentally the serous membranes of the entire body, and endeavor to protect them from the morbid influences of the long continued fever. It is well known that the serous membranes do suffer. We have, as I said, other features than perforation; we have pleuritis, and we have the serous membranes effected in other parts of the body as well.

It is only a theory, and perhaps not worth very much, that if the amount of urea, the amount of uric acid, the biurate of soda and other products of that kind, which, as we all know, have a deleterious effect on the serous membranes (I believe they are the agents held responsible for rheumatism and rheumatic fever and the other formidable affections the serous membranes suffer from), if their accumulation could be lessened by proper diet and their elimination promoted by proper medication, without resorting to anything that would be injurious, whether that could be effected by proper medication or not, is a question. I do not wish to be dogmatic in the matter; it is only suggestive. I am sorry it did not receive a little more attention.

In regard to the query made by the last speaker as to being able to differentiate a perforation incidental to typhoid fever, typhoid from typhoid ulcer and the perforation of appendicitis, I believe the consensus of opinion is there is no such thing. It is not possible to differentiate. It cannot be done.

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## THE BROOKLYN SURGICAL SOCIETY.

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REGULAR MEETING, APRIL 7, 1904.

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The President, W. F. CAMPBELL, M.D., in the Chair.

### DISLOCATION OF THE SEMILUNAR BONE.

DR. L. W. PEARSON presented a man, 30 years of age, who had been knocked down six or seven steps, sustaining a dislocation of the semilunar bone and a Pott's fracture. His hand was more or less swollen, and there was a depression where the semilunar bone should be, and fully 1½ to 2 inches from that was a bone, which the speaker believed to be the semilunar bone. There was a good deal of disability at the time. He refused an operation. The disability became markedly less, and he now has very little discomfort.

### STRANGULATED UMBILICAL HERNIA.

DR. PAUL M. PILCHER presented an Italian woman weighing 225 pounds and being about



five feet high in stature, who was brought to the Seney Hospital with a strangulated umbilical hernia. When admitted the tumor was tense and dark colored, as if almost gangrenous. As soon as she could be prepared, and under ether, a transverse incision was made going around the base of the tumor on either side, making a broad incision some eight inches in length. By deepening the incision to the aponeurosis the mass was entirely freed. Having exposed the neck of the sac a slight incision was made above the most constricted point, by which the sac was opened and the contents exposed. The thickened and infiltrated omentum in the sac was ligated and removed. The coils of engaged intestine were very dark, but did not appear to have lost their vitality. With the application of heat they cleared up, and were then returned to the abdominal cavity.

The question of closing the aperture was then considered. The recti were widely separated, so the incision through the aponeurosis and peritoneum was extended on either side, so as to make a broad flap from above and below. The peritoneum was dissected from the aponeurosis, making two distinct flaps, which went back about  $1\frac{1}{2}$  inches on either side.

The peritoneum was then brought together and sutured, after which the flap of aponeurosis from above was brought down over its fellow below and secured by a series of mattress sutures, so that it was fastened to the outer surface of the lower flap, which it widely overlapped. A second series of simple sutures fastened the edge of the flap down along its entire length. The wound was closed with drainage at the two most lateral and dependent points, going down to the aponeurosis.

The case made an uneventful recovery and was allowed up at the end of three weeks.

#### *Discussion.*

DR. R. W. WESTBROOK said that he had a special interest in this case, because he had today heard from a case in which he operated by Mayo's method nine months ago—a very extreme case. He thought that the essential part of that operation is overlapping the aponeurotic tissues without reference to the particular line in which they overlap, but according to the direction in which the parts come together with least tension. This case was a post-operative ventral hernia, which had been operated upon three years after it first occurred by a well-known surgeon in the city. It soon relapsed, and when the speaker

saw the patient she had a gap almost large enough to put one's hand through into the abdominal cavity. She had symptoms of partial obstruction.

In this case he made a vertical skin incision, and then circumscribed the neck of the sac by an incision through the aponeurotic tissues into the free abdominal cavity, removing the sac entire, as recommended by Mayo. He was able to overlap the aponeuroses in a somewhat oblique direction, and there fixed them with four buried mattress sutures of silver wire, in addition to other sutures of chromic catgut. Although an extreme case, the rupture has remained cured, and there has been no sloughing out of the silver wire, which he feared might occur.

#### APPENDICITIS, SIMULATING CHOLECYSTITIS.

DR. GEO. WACKERHAGEN reported the case of a woman aged 42 years; one child, living, aged 18 years; one miscarriage 10 years ago. She came under his care for salpingo-oophoritis in September, 1902. Curettage was performed, and both tubes and ovaries were removed Oct. 29, 1902, from which she made a complete recovery. The uterus was apparently in a healthy condition at the time of the operation. The interesting feature in this case was that she menstruated the month following the operation and was regular for six months until vaginal hysterectomy, March 16, 1903. This was performed because of perulent endometritis and pain in the region of the uterus. He had never experienced so difficult an operation because the adhesions were so strong and extensive. Every particle of ovarian tissue was removed at the operation for salpingo-oophorectomy. This woman had been in ill-health for about eighteen years and would be classified as a neurotic; she had pain at every menstruation until she married twenty-two years ago; she had suffered for years from stomach and intestinal indigestion; during the past year she had suffered from pain in different parts of the abdomen, most intense over the gall bladder and in the region of the appendix vermiformis. The patient was never jaundiced.

The pain in the region of the gall bladder became more intense from time to time, and each attack was followed by vomiting and great exhaustion. Consultation was called and the consultants were of the opinion that the trouble would be found in the gall bladder and cystic duct. One of the gentlemen declared that he could map out the distended gall bladder. After examining the patient under ether, the speaker

had arrived at the same conclusion. On Dec. 19, 1903, the usual exploratory incision was made, the gall bladder, liver cystic and common ducts were examined and found in perfectly normal condition. There were, however, several adhesions between the omentum and peritoneum also to the ascending and transverse colon which were divided between ligatures. He found the appendix extensively adherent to the caecum, producing kinks or twists which disappeared upon its removal. For three days and nights after the operation the vomiting was persistent and would not respond to any treatment until infusion of normal salt solution under both breasts. Ice coil was applied after the operation and continued for a period of ten days. There has been no pain in the abdomen since the operation and the bowels have moved satisfactorily. On the 2d of January both parotid glands became enlarged and painful and the temperature, which had been normal, rose to  $103^{\circ}$ . On the 8th of January suppuration was detected and the abscess opened and pus discharged freely. Since that time the patient's condition has generally improved and she has made a satisfactory recovery.

#### FRACTURE OF INTERNAL MALLEOLUS AND SHAFT OF FIBULA.

DR. GEO. WACKERHAGEN reported the case of a woman, aged 38 years, who came under his care on the 3d of August, 1903. She had missed a step in descending the stairs and came to the ground on one foot, a distance of fourteen inches below the level of the floor. As she expressed it, she first felt a twist of the ankle joint, with a grinding or crunching sensation, followed by intense pain. She then became unconscious and was carried to her home, a short distance from the place of the injury. The speaker saw her about twenty minutes after. Upon examination he found the foot and ankle joint swollen on both sides. The foot had the appearance of a dislocation outwards, but not that of eversion so characteristic of Pott's fracture. There was intense pain on pressure over the fibula three inches above the tip of the malleolus. Also the same pain over the region of the internal malleolus. He attempted reduction, and placed the limb temporarily upon Dupuytren splint, in order that evaporating lotions could be continuously applied.

Reduction with distinct crepitus was accomplished by extension and counter-extension, and the limb bandaged to the thickly padded splint.

The pain following the reduction was very great, and it was found necessary to keep the patient quite under the influence of morphine for the first three days. It was ten days before there was any apparent diminution of the swelling. In the meantime, the leg and foot were extensively ecchymosed, almost up to the knee joint. The leg was now placed in a suspension apparatus, which added greatly to the comfort of the patient. It was not considered prudent to apply plaster of Paris until the fifteenth day. Passive motion was commenced about the twentieth day. By the end of the fourth week, thin lateral sole leather splints were applied and the patient was permitted to go on crutches. About the seventh week she was transferred to her home at Orange, N. J., and wrote that she was able to bear quite a little weight on the injured foot, and as she had been directed, had left off the leather splint most of the time. The foot and ankle are growing stronger, passive motions continued, but she is not fully able to get the heel down to the floor. October 7th she was walking without crutches or cane and the heel down to the floor. The ankle aches a good deal at times.

With regard to the skiagraphs, taken two months after the injury, after using a powerful lens, the reporter was enabled to detect the line of fracture-repair of the fibula, about  $2\frac{1}{2}$  inches above the malleolus. This fracture was oblique and from within, downward and outward. There were also evidences of fracture of the external malleolus. The inner malleolus shows the fracture very indistinctly in one picture but more distinct in the other. The fibula shows some bowing outwards when compared with anatomical plates. It is a question whether the upper fracture of the fibula was very much displaced.

#### CYSTIC DILATATION OF THE VERMIFORM APPENDIX.

DR. C. P. GILDERSLEEVE presented a specimen belonging to that class of diseased appendices, which have been described under various names of hydrocs of the appendix, mucocele, retention cyst, etc., and supposed to be due to an obliteration of the lumen of the appendix at or near the caecal end, the contents consisting of the retained secretion of the dilated portion.

The patient from whom he removed this appendix was 43 years old and gave an indefinite history of having had three or four attacks of pain each year for the past fifteen years, the pain appearing suddenly while at work as a stone cutter, necessitating his going home for two or three days, after which he would return to work and



experience no more similar trouble for several months. The pain was always the same in character, and never, so far as he knew, attended with any fever, and no vomiting, but at these times he was always constipated and experienced considerable difficulty in getting his bowels to move.

The first attack, which in his judgment was sufficiently severe to warrant his seeking medical attention, occurred two years previous to the day on which the speaker had operated, which was on May 24, 1902; but at that attack it was simply the fact that the pain was more marked and his bowels more obstinate that caused him to call his physician. He had no fever at that time. He had several attacks subsequently. They were becoming worse and more frequent, and finally Dr. Gildersleeve saw him in consultation with Dr. A. J. Dower on May 18th, 1902.

At that time he was suffering from some pain, and that was about the only subjective symptom he did present, except marked constipation. He had a large mass on the right side, which apparently involved the caecum and extended upward toward the liver and was movable. That was the position in which the speaker found it May 18th, and in which it remained until the patient was thoroughly anaesthetized on May 24th. He violently resisted the anaesthetic, and as a result of his contortions he succeeded in swinging this mass over into his pelvis, consequently when examined previous to making incision, the tumor had disappeared, and its previous location now presented a perfectly normal condition. The operator said that he knew that he had been for several days feeling a mass in that side, which was about the size of a banana and very much that shape, so he made an incision about the usual site for an appendix operation, and found what proved to be an enormously distended appendix had swung down into the pelvis. He drew it out of the wound, and found that the distention extended to the caecum. There was not space on the undistended part to apply two ligatures and cut between them. The distention was so marked that partial collapse took place before he could secure it, notwithstanding an assistant caught the appendix as soon as possible with long forceps.

This case resembles somewhat a case reported by Weir in the New York Medical Journal, May 23d, 1903, to the extent that it had extremely thin walls and was translucent to light, but differed from his case by being distended close to the caecum. In his case the appendix at the caecal end for about one inch was normal as regards

size. He describes the contents in his case as a clear, yellow fluid.

The best description that the speaker could give of the contents of this case is foam or froth. Examination of the specimen gave a sensation of fluid, but at the time of removal it was distended with a gaseous froth-like material, which escaped rapidly before it could be secured. The appendix measured five inches long and nearly four inches in circumference at its inner dilated extremity, and this thin, bulging extremity is due to the fact that it had been inverted. Before removing the appendix he had endeavored to unfold this part, and succeeded in unfolding most of it before removal, but found if he persisted that he would succeed only in rupturing it, so he completed the process after removal, which was rendered comparatively easy owing to the partial collapse.

There were absolutely no adhesions present in this case, and the attacks were due evidently to changes of position. The patient made an uneventful recovery, and has had no trouble since.

EXOPTHALMIC GOITRE: OPERATION: RECOVERY,  
WITH RELIEF TO THE PREVIOUS NEUROTIC  
SYMPTOMS.

DR. LEWIS S. PILCHER presented the record of a case of exophthalmic goitre, which after having been under medical treatment for a number of months without material improvement and having been very closely watched for many weeks, was finally submitted to surgical attempt for relief. The lady is 35 years of age, and had led an active life involving a good deal of responsibility, and only within the last year had developed the signs of thyroid enlargement and the general nervous disturbances incident to Basedow's disease.

He showed the pulse and temperature chart for a period extending over some six weeks—four weeks previous to the operation and two weeks subsequent. Upon examination it was noted that while the temperature record was practically unimportant, being normal, with slight variations, from the beginning to end of the history of the case, the most interest attached to the extreme variations of the pulse alone. The lowest point the pulse had reached was 110, and it varied from that up to 200 beats per minute. During the two weeks immediately preceding the operation the extremes were from about 130 to 180 per minute.

Immediately following the operation, the pre-

vously existing alterations in the frequency of the pulse were seen to have ceased, and from a point of 150 per minute, it steadily diminished until upon the day after operation it had reached a normal rate of 80 per minute, the first time for months the pulse had been slowed to that degree.

There was also a coincident restoration of the general nervous tone and the sense of well being and ability to again grasp the problems of life, which for many weeks had been absent. At the present time (two months after operation) the improvement has been persistent and satisfactory.

The graphic record which this chart presents of the conditions manifested in a case of this kind strikes one at a glance. Questions of extreme interest attach to cases of this kind. First, as to the cause of the disease; at all events the complex of symptoms which produce the disease, especially whether they are due to an excessive secretion of the thyroid product and its absorption and remote action upon the other organs of the body, or whether the thyroid symptoms are simply a part of a deeper or more widespread change, which may have its seat in some portion or portions of the nervous system, or more particularly of the sympathetic system.

Every case which is submitted to surgical operation must be considered as an experiment, and the ultimate results which a large number of such experiments give us, may offer some reasonable and broad foundation for a satisfactory conclusion as to the real pathology of Basedow's disease, and as a contribution to this, he presented the record of this case.

In this particular case the enlargement of the thyroid was limited chiefly to the isthmus and the left lobe. While there was some enlargement of the right lobe, it was comparatively slight when measured with that of the other portion of the gland.

The excision was through the ordinary curved skin incision, with the convexity downward. The left lobe and the isthmus were exposed, the vessels supplying the lobe were tied off, the isthmus was tied off and the hypertrophied part was cut away. There were no unpleasant features marking the later history of the case.

In all extirpations of the thyroid it is now well understood that no total extirpation of the thyroid should be done, except in malignant disease. In all these cases Dr. Pilcher said that he provided for drainage freely, in order that whatever excessive amount of secretion might be poured out from the stump of the thyroid should escape externally and not retained and produce

the disturbing results which its absorption might occasion.

The one question, which above all had been under discussion in connection with the technic of these operations has been as to the use of a general anaesthetic; whether a general anaesthetic is the proper thing to use, or whether such operations should be attempted only under the influence of local cocainization. A very considerable amount of testimony has accumulated showing the superior safety of local anaesthesia in attacking these growths.

In this particular case the patient, being a woman of intelligence, the matter was fully presented to her, and the recommendation made that a local anaesthetic should be attempted. She, however, understanding the additional risk, which was supposed to attach to a general anaesthetic, after thinking the matter over for a day or two, decided whatever the risk was she would have a general anaesthetic and would not have a local anaesthesia attempted, so ether was administered, and no more disturbance and no more ill effect of any kind attended the administration of the general anaesthetic in this case, nor so much as attends its administration in the ordinary run of surgical operations.

The question might be raised and was raised in connection with this case as to whether the removal of the cervical sympathetic ganglia should be resorted to rather than the removal of the thyroid itself. Of course, if the disease is one due to an affection of the cervical sympathetic ganglia, to remove them is the proper thing to do, getting at the bottom of the disease rather than to direct an attack to an organ which is the seat of a secondary disturbance. If, however, the thyroid change is the essential element of the disease, the removal of the sympathetic ganglia would seem to be going wide of the cause of the disease, and a procedure which the prudent surgeon should avoid, for the reason that not only does one exert an influence upon the thyroid itself by the removal of the sympathetic ganglia, but also very widespread and complicated relations without her parts and organs of the body are likewise disturbed.

From this point of view it had always seemed to him that it was not justifiable to attack the sympathetic ganglia in efforts to relieve Basedow's disease. The weight of evidence at present is that the thyroid should be attacked. If after the removal of the thyroid the symptoms should continue, it would then be time enough to attack the sympathetic ganglia.



As regards peril to life, the statistics have shown that one is quite as perilous as the other.

#### LATER REPORT OF CASE OF HIP JOINT AMPUTATION FOR SARCOMA OF FEMUR.

DR. LEWIS S. PILCHER said that last spring he presented a case of hip joint amputation for sarcoma of the femur, and at the same time gave the record of other cases of amputation at the hip joint, six in all, which had occurred in his practice. The very fine recovery which had been secured in that particular case, the patient being a married woman of about 30 years of age, will be remembered by those who examined her. Within the week he had again seen her. She was then three months advanced in pregnancy. She was suffering much from dyspnoea. The superficial veins of her neck were very greatly enlarged and distended. The stump was perfect. The pelvis was free from disease; there was no evidence of local recurrence, but upon examination it was evident that the liver, the mediastinum, the lungs and the cervical glands were all the seat of metastatic sarcomatous development. He presented a skiagraph of the thorax and base of the neck taken by Dr. P. M. Pilcher, in which a close examination showed these sarcomatous deposits as darker, shadowy areas throughout the thorax; also could be seen the enlarged liver, the heart shadow merging above in a dense mass of black which fills the whole mediastinum, and which is continuous with the same mass at the base of the neck.

He presented also a skiagraph of tubercular lung, for the purpose of comparison with the one of sarcoma of the lung. In the tubercular case in the apex of the thorax may be seen the tubercular deposits and the crater-like conditions marking the existence of cavities in the lungs, the shadow formed by the broad and the rounded border of the liver just visible at the lower edge would also be seen.

#### SKIAGRAPHS OF UNUSUAL FRACTURES.

DR. LEWIS S. PILCHER presented first a skiagraph showing an impacted fracture of the neck of the femur in the case of a woman well advanced in years, who fell heavily upon the outside of the thigh. The injury was well shown in the picture.

The next showed a fracture of the shaft of the femur healed in malposition, the skiagraph having been taken three months after the injury, the patient having been treated at home by a plaster of Paris bandage without extension.

He presented next a skiagraph of fracture of the leg with fibrous union, the fracture of the leg having been sustained last Fall, the patient being brought at once to the Seney Hospital, and having been under his care throughout from that time until the present. The case was treated after the usual method of replacement and immobilization with plaster bandage for the usual length of time. At the end of five or six weeks, the union still being evidently incomplete, he was encouraged to go about supported with his plaster dressing, with the leg hanging, depending upon his crutches. He has been seen from time to time since then. The fracture did not become ossified, but has remained ununited. Recently he returned for further treatment in the hospital. When he was admitted the relation of the bones to each other were as seen in the skiagraph. They were united by a fibrous band, and with the degree of displacement shown. Putting him upon phosphate of lime internally, after a few days of preparatory treatment, he exposed the parts by proper incision, broke up the fibrous union, refreshed the bony surfaces until a very satisfactory tenon-like arrangement of the two opposed ends was apparently provided for, and then secured them together by firm, strong silver wire which passed through. A few days later a skiagraph was taken which he presented, showing the condition of the parts after the reposition as they are held together by the wire.

A third case was one of fractured patella, which was treated by wiring during the past winter. There was an antero-posterior and a lateral view of the bone, with its wire in place. There had been no disturbance in the healing of the case, and the man is now at work.

The next case was a comminuted fracture of the astragalus and os calcis. The manner in which the astragalus was driven down into the os calcis and the fragments of the os calcis were forced apart by the wedge driven down into it was well shown in this skiagraph.

Another skiagraph was one of primary sarcoma of the lower end of the tibia, for which amputation at the knee joint was done three weeks ago.

Lastly, he presented two views taken of a gunshot wound of the face, in which the bullet had entered over the prominence of the malar bone and passed back and lodged in the zygomatic fossa. The two views were respectively anterior and lateral, showing the position in the zygomatic fossa, in which the bullet was lodged.

To reach this bullet and to remove it he

adopted the procedure which he had in other cases adopted for the purpose of reaching and removing the third branch of the fifth nerve, viz.: the making of an incision along the lower edge of the inferior maxilla from the angle forward, exposing the inferior maxilla at the point of junction of the ramus with the body and cutting it across with a saw at that point. The ramus can then be raised up and free access to the zygomatic fossa obtained. This procedure enabled him in this case readily to reach and remove the bullet in the position which was shown in the skiagraph. The bullet has an unusual feature, viz.: as it passed from before backward it struck the coronoid process of the inferior maxilla, and the coronoid process embedded in the bullet was broken off and with it carried into the zygomatic fossa, and the bullet as removed shows the end of the coronoid process sticking in it.

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### THE BROOKLYN GYNECOLOGICAL SOCIETY.

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STATED MEETING, MAY 6, 1904.

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H. C. KEENAN, M.D., EDITOR.

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The President, W. E. BUTLER, M.D., in the Chair.

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#### REPORT OF CASE: SUPPURATING INTRALIGAMENT- OUS CYST; OPERATION; RECOVERY.

DR. J. R. TAYLOR: This specimen came from a patient who had been confined by a midwife about two years previously. The woman got along fairly well after confinement. When I was called to see her, the history was that she had missed her period and had gone on for about six weeks. Then she had a very profuse flow from the uterus and the attending physician supposed it was a miscarriage. He acted upon that idea and did a curettage. She was comfortable for two weeks longer when the hemorrhage returned and I was called into see her.

I found she was flowing freely, the uterus enlarged, the os patulous and there was nothing in the uterus. There was tenderness all over the lower abdomen and a mass in the right broad ligament. The attending physician said he thought she had an ectopic, and she was taken to the hospital that night for operation. When I opened the abdomen on the following morning I found that there had been a general peritonitis

some time before and all the pelvic organs in a mass which it was impossible to distinguish from each other.

The left ovary was pulled across the fundus and attached to the right at the back of the fundus. After freeing the adhesions of the transverse colon, I peeled off the left ovary and removed it with the tube. The right one I freed from its adhesions and allowed to remain. I hunted to see what the mass in the broad ligament might be, and found it was very firm and fluctuating; and going down into Douglas' pouch I was able to separate it from the broad ligament, but in doing so it burst and there escaped about four ounces of thick, creamy pus. After cleaning up the pus, I shelled the cyst out. It had very firm walls. I poured about four ounces of peroxide of hydrogen in the pelvis to clear up the oozing. There were a few small vessels I had to tie. The abdomen was then filled with normal saline and closed up. The patient made a normal recovery.

#### REPORT OF CASE: CHRONIC RECURRENT APPENDI- CITIS; OPERATION.

DR. J. R. TAYLOR: This specimen was removed from a patient who had been treated for a variety of digestive ailments without success. She had a great deal of trouble at her menstrual periods. Examination showed she had a tender mass in the right pelvis, the left giving her no trouble. She was 26 years old and married.

At the date of her last menstrual period, she started in with an acute general peritonitis. I opened the abdomen and found the condition to be an acute peritonitis, supervening upon old trouble of the same kind. Everything in the abdomen was adherent. The only thing that was distinctly visible inside the cavity of the abdomen was the appendix, which was perfectly straight and lying in the true pelvis. The ovaries were firmly adherent to the uterus. In separating the adhesions I replaced the right ovary on its proper side and tore a part of it, so that I had to take a few stitches to stop the hemorrhage. I removed the right ovary and tube and the appendix.

This appendix, and one which I removed today from a small child, are the only two which I have ever seen, which, instead of coming off abruptly from the head of the cecum, came off in a funnel-shaped manner. The patient is making a normal recovery.

DR. W. B. CHASE: After putting in the peroxide in the cavity of the cyst, did you irrigate and wash away the peroxide before you put in



your final quantity of fluid, or did you allow it to remain and blubber out its nascent oxygen?

DR. J. R. TAYLOR: I did not use the peroxide as an antiseptic, but simply to control the oozing which was not sufficiently large in its nature to require a ligature, and as soon as that purpose was accomplished I mopped out the peroxide with sponges. It stopped the oozing. I filled the abdomen with saline before closing up.

DR. W. B. CHASE: In regard to peroxide of hydrogen, as a result of clinical observation, I have reached the conclusion that there is nothing that has more power in disorganizing blood clot than peroxide, and I have seen it productive of troublesome hemorrhage more than once.

REPORT OF CASE: ROTATION OF HEAD ANTERIORLY  
BY FORCEPS IN AN OCCIPITO-POSTERIOR  
POSITION.

DR. H. C. KEENAN: I had a case about two weeks ago that I should like to report the procedure used, not so much on account of any originality, but because I have not seen the method mentioned in text books, and a number of men to whom I happened to mention it have not performed it and some have not even heard of it, although it is not new.

I was called to a case in which the doctor had used the forceps and had been unable to deliver the head. On examination, I found an L. O. P. position. I put on the forceps in the ordinary manner and turned the head  $\frac{1}{4}$  of a circle to an L. O. A., which, of course, made the forceps upside down. I then removed the forceps and put them on in the right manner and the head came away readily. I would like to ask the experience of the other members in rotating the head from a posterior to an anterior position?

DR. C. JEWETT: Forceps for rotation of occipito-posterior position arrested in the cavity is a very valuable measure. It was first practiced by Scanzoni fifty years ago. It is not new, as some recent writers would have you to think. Impacted occipito-posterior positions when neglected or not recognized are responsible for some of the worst tragedies of the lying-in room. Forceps properly used relieves the situation of all terrors. It is my practice to apply the forceps to the sides of the child's head, turning the head a quarter circle at a time. The trunk is made to follow by external manipulation applied in the intervals. The forceps will be upside down when rotation is complete. The blades are then removed and reapplied in proper position. It is a mistake to deliver with the forceps reversed.

The main secret in the operation consists in so manipulating the handles, that the blades shall be kept in the axis of the birth canal during the entire rotation.

DR. J. O. POLAK: I saw a very interesting occipito-posterior about three weeks ago.

This woman had had three children, all of whom were born after very difficult labors. She had been in labor a day and a half before I saw her with the attending physician. During that time the head had *not engaged*. The membranes had ruptured. The doctor told me that the head was engaged. He had mistaken caput succedaneum which reached the vulva for an engaged head—one of those neglected cases where the os dilates and a caput forms. He had put on forceps several times. The last time they had slipped, and what was left was simply a coccyx and a posterior rectal wall. Both labia were swollen and there was a hæmatoma in each. That case was an R. O. P., and he called a consultation because after he had made the last application of the forceps the patient quit having pains. When I saw her she was pulseless and she presented the typical picture of collapse. I told the doctor we probably had a ruptured uterus. The child being dead, we did a perforation and had no difficulty whatever in delivering the foetus.

I do not think we educate the general practitioner sufficiently in diagnosis, while we do educate him in fiddling. There is only one time when the forceps can be applied safely by the general practitioner and that is when the head is engaged and in perfect *flexion*. By following this general principle, accidents would be infrequent.

With regard to the application of forceps to occipito-posterior positions, I think if we would follow a safe principle, we should divide these cases into three classes: The occipito-posterior that presents at the brim with the membranes unruptured, where there is nothing necessary but postural methods; the occipito-posterior at the brim with the membranes ruptured, with the cervix dilated or dilatable, where we find that posture in conjunction with combined rotation, by internal and external manipulation is of service, and if we can engage the head, then that case can be delivered by forceps. If the head cannot be engaged it should be promptly turned. The third class is where the head is in the pelvis; these cases can, as a rule, be delivered without difficulty by forceps applied to the sides of the pelvis and reapplied as the head is brought down. It may mean two or three applications, yet if a man

is expert enough to apply them to the sides of the head, he can use his forceps for a rotary traction. Axis traction is the one point in these cases that makes the difficult case easy, even when the forceps are applied to the sides of the pelvis.

When the head is in the pelvis, the suggestion that the doctor makes is a very valuable one; the point is to keep track of the sagittal suture and the relation it bears to the diameter of the pelvis and where the posterior fontanelle is, for if we keep track of it intelligently there is no reason if the head is in the pelvis why that head cannot be rotated by the judicious use of forceps.

DR. C. JEWETT: I may mention another method which I have used instead of forceps in some cases with satisfaction. The patient is placed on a table. Obstetric analgesia is maintained by an expert anesthetist. An extra nurse or medical assistant skilled in obstetric manipulations applies vigorous *expressio fatus*. The obstetrician manages the head. As a rule, posterior positions rotate and the head descends where otherwise delivery would be impossible without forceps. This method may often replace forceps in partial failure of the expelling forces to the advantage of mother and child.

REPORT OF CASE: USE OF PHYSOSTIGMIN SALICYLATE IN INTESTINAL PARESIS—APPARENT OBSTRUCTION.

DR. C. JEWETT: Intestinal paresis and obstruction is a dreaded sequel of abdominal operations. Alum enemas, one ounce to the quart of water, molasses injections and all other measures in common use may fail. Several times during the winter I used physostigmin but with no satisfactory result. The suggestion I obtained from some foreign source quoted in the journals. The dose was too small. Recently the drug has been written up by Craig of Boston. I have since used it successfully in the following case after operation for ectopic gestation.

The right tube was about as large as a sausage. Behind it was a large mass of blood-clots encysted in the cul-de-sac by agglutination of intestines, omentum, etc. The ovum had been dead some weeks. Active peritonitis had followed. I removed right tube and ovary and the appendix which, with the meso-appendix was thickened to several times the normal size. On the left side I did a phimosis operation on the tube. The left ovary, which was firmly adherent, was brought up and attached to the cornu by shortening the ovarian ligament. A large gauze pack

was left in the pelvis, one end carried down into the vagina and all covered with omentum.

At the end of three days, the abdomen was enormously distended and all the usual measures had failed to move the bowels. The patient had vomited steadily since the operation. I then suggested a hypodermic injection of 1-60 gr. of salicylate of physostigmin. Within a few hours the vomiting ceased and toward the end of twelve hours, as the bowels had not moved, the physostigmin was repeated. Within a short time after the second dose there was a free evacuation, and, later, 5 or 6 more. This was apparently as hopeless a case of intestinal obstruction as I had ever met with. The patient now is making a perfectly comfortable recovery.

I gave it in another case some days ago before the operation. One 1-150 gr. atropia was combined with 1-60 gr. of eserine salicylate. This patient had considerable work done in the abdomen and no drain. She had no nausea whatever, no vomiting, little or no dryness of the throat and the abdomen remained flat. The patient appeared much more comfortable on the following day than is usual after abdominal operations. As the bowels had not moved at the end of 48 hours, a molasses enema was given when they moved freely. These doses of eserine were small. One-fortieth grain is more certain and more prompt in its effect.

The best use of the eserine is for the prevention of intestinal paresis. For this purpose it is given before the operation. Its effect is to stimulate intestinal peristalsis. This it does directly, and as Craig says, since it is a special motor-depressant it, at the same time, combats the spinal reflex inhibitory effect upon the peristalsis which comes from the irritation of the splanchnics. Atropin, which is commonly used for other purposes before anesthesia, co-operates with the eserine. It also serves to antidote the unpleasant effects of eserine. Again, eserine, by stimulating the secretions, relieves the dryness of the throat and the thirst which follows the use of atropin alone.

The measure, I believe, is a valuable one and I would be glad to know the experience of other members of the society.

DR. J. O. POLAK: I am glad to hear Dr. Jewett make this statement. I have been using eserine since Packard, of Philadelphia, suggested it, and have found some benefit from it, but until reading Craig's article about a month ago I had not used it as routine. Since that time I have used it in five cases, two very serious ones. There are two or three points that have impressed



themselves upon me. One is the extreme flaccidity of the abdomen after the use of eserine. In the cases I have used it, at the time of operation, giving a hypodermic on the table of 1-50 gr. and repeated every three hours, the abdomen has been perfectly flat. The patient's condition is so good, that it looks suspicious. It gives one the impression that something is going wrong because she is so comfortable, and in two fairly difficult abdominal sections (two hysterectomies) with adhesions, we did not need to use any enemata. I followed Craig's suggestion entirely—at the end of 24 hours an A. B. & S. pill was given and a natural movement of the bowel resulted.

A case that interested me considerably was seen about three weeks ago, a girl who had had an abortion done by a midwife with a resulting septic peritonitis. The abdomen was distended beyond all appreciation. It was distended to such a degree that the girl was breathing 65 to the minute and the abdomen was tense and oedematous. The pulse had gone up correspondingly with a very much impeded heart action.

On examination, the case presented a full cul-de-sac with the uterus crowded against the pubis. We made a posterior section, and emptied 2½ quarts of pus. The distention of the abdomen was relieved so far as the fluid was concerned, but the distention of the intestines was very considerable, and the rectum was so patulous from continual enemata that nothing could be retained within it. She was constantly passing mucus, as we find in those cases where enemata have been given continually. This case under 1-50 gr. eserine used every three hours, without any other treatment, got well. In 24 hours she was passing gas freely. In 36 hours her abdomen was absolutely flat. We withdrew the isolation gauze that had been put in the pelvis on the fifth day, and she has done well since. I do not believe that it was the surgery that did the good there as much as the eserine. I admit if the pus had not been removed the patient would have died, at the same time the distention and paresis of the gut was so extreme that it certainly had some value. While it may not do all that Craig claims, yet I am very sure that the continued use of eserine, and used as Dr. Jewett suggested before the operation, will minimize that troublesome over-distention and vomiting that we have been troubled with in the best technic and best prepared patients.

DR. C. JEWETT: Dr. Polak would not continue the use of 1-50 gr. for any great length of time.

DR. J. O. POLAK: I have used it for four days. The patient had an occasional dose of atropine with it; to antidote it.

DR. J. R. TAYLOR: I would like to inquire of Dr. Jewett, whether in giving the eserine before the operation there is not a tendency to start the peristalsis so early that it will give you difficulty with regard to the intestines during the operation. It has been advocated by various operators that a good thing to do immediately before an operation is to use a saline to get rid of the nausea which may take place after the etherization and also to start the peristalsis later on after the operation is over. Personally, I have found that the peristalsis starts before you are ready for it and gives a great deal of trouble, and I would like to know if the eserine will not give you the same trouble; in other words, whether it is not better to use it after the operation.

DR. C. JEWETT: It would, perhaps, be better to give the eserine after operation. I have seen no trouble with it when given before. It is my practice to give the patient a quart of saline solution, per rectum, after operation. This, in addition to other objects, helps to move the bowels.

DR. J. O. POLAK: In the case which we used eserine for three days, we started the eserine immediately after the operation, giving also an A. B. & S. pill. In the second case we got prompt action from the A. B. & S. pill without any trouble whatsoever. In one of the cases we had to repeat the pill every eight hours. The patient had no discomfort and no distention and no colic. She passed occasionally gas per rectum, but she did not have a movement, and that case was supplemented by an enema, but the thing that has impressed me more about eserine than anything else, is that the bowel remains flat, it does not distend, and even if the patient does not have a movement and does not pass much gas, she is not uncomfortable and is not distended. If you put a stethoscope on the abdomen you can hear the peristalsis, but yet they are not uncomfortable.

#### PAPER: DISEASES OF THE RECTUM AND GYNECOLOGY.

BY V. L. ZIMMERMANN, M.D.

#### *Discussion.*

DR. J. O. POLAK: I must compliment the doctor on his clear and concise description of the anatomical relations of this region. He has gone into some of the local lesions we find, and I think if we were to look for them more often, we

would possibly do fewer operations on some of the generative organs.

For a long time I have been accustomed to investigate the rectum of each patient, as well as go over the bladder, and while I have made it a routine, and sometimes it has been an unnecessary trial for the patient to go through, at the same time I have learned many things about reflexes and reflex pains from the rectum that I did not know before I made it a routine to interrogate this organ.

There is no question that fissure, ulcer, proctitis and sigmoiditis are factors in the comfort of a woman, particularly proctitis and sigmoiditis, and the majority of women who have been gynecologic sufferers for any length of time, whether they have had lesions of the pelvic organs or not, are constipated, and this chronic constipation is a very great cause of the ulcers, proctitis and sigmoiditis the doctor has called attention to. It is surprising how cures in this particular region will relieve these patients of their symptoms, that have been attributed by previous examiners and the attending physician to lesions in the uterus, ovaries and tubes. This is particularly so in left-sided disease. Of course, we know left-sided disease occurs more often than disease of the right adæxa. I think it occurs three times as frequently.

I think rectal lesions, abrasions of the rectal wall offer avenues of infection, and if the case was properly managed from the beginning these lesions would not be present.

The Doctor has practically summed up the treatment of these cases, and it is very easy with the proctoscope, and if you do not feel like using the Kelly proctoscope, which is a very valuable instrument, it will be worth one's while to have one made on the same principle, a little smaller, which can be introduced into the rectum without pain.

I must take issue with the Doctor, in the fact that we can recognize all of these lesions, with the properly trained finger with surety. We may have a strong presumptive suspicion that they are there, but it does take a direct, clear inspection often to find these lesions. One very simple method of examining the lower part of the rectum, is the introduction of the finger in the vagina and the eversion of the rectum and the rectal wall through the anus you dilate with the finger through the vagina. In that way we can appreciate fissures better than by any other method with less pain and disturbance to the patient, and bring them directly in the field of treatment by the local application of various

drugs, and of the various drugs the nitrate of silver that the Doctor has spoken of stands probably at the head of the list. In using nitrate of silver solutions, I would call attention to the advantage of using weak solutions. We will find that 10 to 20 grains to the ounce and even five grains to the ounce in sigmoiditis will work much better than using stronger solutions in these conditions.

DR. C. JEWETT: The subject has been presented in a very interesting and forceful fashion. The gynecologist is often concerned with the rectum and bladder from a diagnostic point of view. It is a common thing to have pains originating in the rectum referred to some other point in the pelvis and the converse is not infrequent; for instance, a patient complained of pain in the rectum, passing a probe into the uterus the pain was aggravated. The source of the rectal pain was a hyperæsthetic os internum. Another case had been treated for some lesion of the generative organs: I found an ulcer just within the sphincter ani.

As to diagnostic methods, a proctoscope smaller than the regulation size is often needed, I have had a small one made which I use frequently. Sometimes the largest Kelly urethral speculum answers. With a long proctoscope and a low amperage electric lamp passed through the proctoscope, I have no trouble in exploring three or four inches of the lower end of the rectum and can learn more by this method than by the finger. For exploration high in the bowel, the long tube and the knee-chest position for ballooning the bowel brings the entire length of the rectum within easy ocular inspection with the aid of the electric lamp.

The levator is, I believe, an important part of the support for the pelvic organs, yet there are many who hold that the pelvic viscera, the uterus especially, are suspended from above rather than supported from below.

The occurrence of rectal ulcers is somewhat common after parturition, in my experience.

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#### BROOKLYN MEDICAL SOCIETY.

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The Ninety-third Regular Monthly Meeting of the Brooklyn Medical Society was held on the evening of Friday, May 20th, 1904.

The President, DR. WILLIAM B. BRADER, in the Chair.

Minutes of the previous meeting read and adopted.

Applications for membership:



Dr. Frank D. Jennings, 53 Woodbine Street; P. & S., '02.

Admission to membership:

Dr. George C. Straub, 1122 Hancock Street; L. I., '02.

The following names, although they were presented at the April meeting, were not acted upon by the Membership Committee, and hence have to be put over to the next meeting for action:

Dr. George Palmer Thomas, 748 Jefferson Avenue; U. of P., '01.

Dr. Ora Swift, 275 Bleecker Street.

Dr. F. E. Wilson, 1242 Bushwick Avenue; '82.

#### CLINICAL SECTION.

1. DR. WILLIAM FRANCIS CAMPBELL reported a case of cicatricial contraction of the lip upon which he had performed a plastic operation. He also presented the patient. He said that the contraction was the result of a severe burn of the face and chin; operation two and one-half years ago. The contraction was horrible to look at, the apex of the under lip being brought down to the chin. By the removal of a triangular area and skin grafting he was able to bring about an excellent result, as was evidenced by the appearance of the boy. A secondary operation will be necessary to make a complete job.

2. DR. L. P. HOOLE presented a patient who had an aneurysm of the aorta. Patient an Italian girl 19 years old. One and a half years ago complained of a cough, general weakness and severe dyspnoea. On examination respiration was found to be synchronous with pulse. Had a pulsation of the sternum. Suffered from orthopnoea. Patient improved on rest and a milk diet.

3. DR. H. A. ALDERTON reported a case of otitic leptomeningitis and presented the specimen of the brain and the excised temporal bone. Saw patient at the Kings County Hospital in March, 1904. Family history was negative. History of a three weeks debauch. When seen complained of severe headaches and had a discharging ear. Had swelling behind ear. Had had active delirium; was found unconscious in the street and had to be carried home; talked incoherently, but responses were intelligible. Examination of abdomen and chest was negative. Temperature 104; pulse 140; leucocytosis 16000. Purulent secretion in the external canal of the left ear, with perforation of the drum. Had opisthotonos later. Right side normal outside of slight congestion. Double mastoid operation. On left side the cells were softened and broken down towards antrum; full of pus into the larger cells. There was no phlebitis. Dura slightly inflamed. No adhesions between the membranes

of the brain. Post-mortem and bacteriological reports confirmed the diagnosis of leptomeningitis.

4. DR. CHARLES JEWETT presented several specimens of fibromata which he had removed from patients who were pregnant. (a) In which fibroid was attached to the fundus of the uterus in a young primipara which, because of the danger of necrosis, he advised removal. This was easily done and pregnancy gone on undisturbed. (b) Also a primipara 6 months: high temperature and developing sepsis compelled removal of the pedunculated fibroid. (c) Multipara; fourth pregnancy; eighth month of gestation. Very large tumor. Pressure effects very great. Cæsarian section and complete hysterectomy. Patient died but child is still alive. (d) Patient nine months pregnant. Edema of the lower extremities from pressure. Cæsarian section and hysterectomy.

5. Demonstration of Dr. Bartley's Ureameter.

6. Paper: "Colle's Fracture," Dr. William Francis Campbell.

Discussion by Drs. Walter C. Wood, A. T. Bristow, J. P. Warbasse, Dr. Rankin and Dr. J. D. Sullivan.

HUGH EDWARD ROGERS, M.D.,

Recording Secretary.

#### PROGRESS IN OTOLOGY.

BY J. E. SHEPPARD, M. D., AND S. H. LUTZ, M. D.

#### MASTOID OPERATION IN DIABETICS.

Mittheilungen a. d. Grenzgebieten, Jena—Körner reviews 38 operations on diabetics undertaken on account of mastoiditis. In mild cases the sugar in the urine was increased but only temporarily. Only in very severe cases is coma to be feared. An otherwise indicated operation need not, therefore, be omitted on account of an existing mild diabetes, but in the severe cases no operation should be undertaken unless under vital necessity. Only 7 of the total number of cases were personally observed by him; 27 have been published before and 4 were communicated by Kümmel.

#### AFTER-TREATMENT OF RADICAL OPERATIONS.

Wiener Klinische Wochenschrift, Vienna—Poltzer accelerates healing after a Panse or Körner plastic operation by transplanting Thiersch flaps when the surface is granulating about the sixth to the twentieth day. He irrigates the ear with sterile water for several hours beforehand, then fills it with 6 per cent. hydro-

gen peroxide, and then after five minutes dries and tampons with cotton. Three or four hours later he does the transplantation. He takes the flap from the inside of the thigh or arm, about one or two square centimeters in size, and applies it on the perforated tip of a canula, of which it gives an illustration. There are a dozen or more openings in the tip of the canula, the other end of which swells to form a sphere just before it is attached to a rubber tube and bulb. The flap is placed on the tip of the canula and the latter is then introduced into the ear, and when the flap is over the proper location it is blown on it by pressure on the bulb. The ear is then packed with small cotton wads, avoiding pressure on the flaps. He describes the technic in detail, and states that it has been followed in twelve cases to date in his clinic. In five cases healing was perfect. In five others partially so, and the two others were failures at first, but one healed after a second transplantation.

#### SURGICAL TREATMENT OF FACIAL PALSY.

*Medical Record*, Feb. 27—The surgical treatment of facial palsy by facio-hypoglossal nerve anastomosis is described and discussed by Taylor and Clark. The best results follow in traumatic cases, and these should be done at once. The nerves must not be unduly pinched nor handled, the sutures must be fine and involve only the nerve sheaths. They do not advise complete division of the hypoglossal, but would extend the facial laterally into it, though complete end-to-end nerve regeneration is most active and satisfactory, but of course means paralysis and atrophy of the muscles supplied by the cut nerve, therefore they do not advise it. The authors remark on the physiologic association of the two centers of the hypoglossal and facial nerves, as shown in frequent affection of both in disease, therefore they favor this anastomosis.

#### TREATMENT OF AURAL VERTIGO BY LUMBAR PUNCTURE.

*Annals of Otology, Rhinology, Laryngology*, St. Louis—From a translated article by Babinski on "The Treatment of Ear Diseases and of Aural Vertigo in Particular, with Lumbar Puncture," the following conclusions are drawn: Rachicentesis exercises a remarkable influence upon aural vertigo, it either lessens it or it disappears entirely. It acts less favorably upon tinnitus and deafness. Rachicentesis is more efficacious in pure labyrinthine lesions and usually more efficient in adhesive otitis than in dry otitis. Rachicentesis is not dangerous and does not expose those who submit to it to any aggravation.

#### BORIC ACID WOUND DRESSING WITHOUT PACKING AFTER RADICAL OPERATION.

*La Presse Oto-Laryng.*, Belge—Eman, Ghent, used only insufflation with boric acid, or boric acid and aristol without packing of any kind in seven cases and was well satisfied with results.

#### PROGRESS IN OPHTHALMOLOGY.

BY JAMES W. INGALLS.

#### ETHYL CHLORIDE AS A GENERAL ANESTHETIC IN EYE WORK.

Stephenson (*Ophthalmoscope*, April, 1904) says that few ophthalmic surgeons appear yet to realize what an extremely valuable anesthetic they possess in ethyl chloride, an agent now widely employed in general surgery. Advantages claimed are, facility and rapidity of anesthesia, quick recovery, absence of vomiting, and last but not least, in point of safety, ethyl chloride ranks next to nitrous oxide. (Seitz, *Lancet*, 1903). Stephenson regards, "from an ophthalmic point of view," ethyl chloride as an almost ideal anesthetic. He has used it in more than two hundred cases and is well satisfied with results.

Chaldecott, who is anesthetist to several London hospitals, adds, in a subsequent article, that there can be no question but that the introduction of ethyl chloride as a general anesthetic will prove a great boon in all branches of surgery which include minor operations. The surgery of the eye and eyelids includes many operations which can be performed with an available anesthesia, not exceeding two minutes in duration. In these cases deep anesthesia can be induced, the ethyl chloride is then removed and operation is performed without any more anesthetic.

#### LOCAL ANESTHESIA.

Guttman (*Archives of Ophthalmology*, May, 1904) describes his method of inducing local anesthesia in operations on the eyeball and eyelids.

Technic is as follows: Instil into the conjunctival sac two drops of a 4% solution of cocain. "A Pravaz syringe is filled with the following solution: Natr. chl. 0.2; cocain 0.05; aq. destill. 100." When operating for trachoma, needle of syringe is thrust into a loose fold of the palpebral conjunctiva, and four or five drops are injected. This is repeated in different parts until the entire conjunctiva of lid is infiltrated. Fifteen to twenty-five drops are necessary to anesthetize each lid.

This method has been employed in fifty-two consecutive operations for trachoma. In operations for strabismus only a few drops are needed.



A larger amount causes edema and thereby field of operation is obscured.

Compared with general anesthesia, following are some of the advantages claimed: Freedom from danger, no unpleasant after effects and detention in hospital unnecessary. This method is superior to the usual local anesthesia, by cocaine, because of the freedom from pain both during and after operation. One disadvantage is that in operating for tumor of the lid the edema renders it difficult to make out position of tumor.

#### GLAUCOMA.

Roosa (*Medical Review of Reviews*, March 25, 1904) emphasizes the "Necessity of a Knowledge Among General Practitioners of the Diagnosis and Treatment of Glaucoma." He regards it as a great misfortune that attacks of glaucoma or increased tension are often overlooked and treated for neuralgia, iritis or "cold in the eye." In acute cases, iridectomy affords the only chance for permanent relief. Concerning these cases in which myotics are indicated, Roosa prefers to have the eserine or pilocarpine in oil rather than in an aqueous solution. He believes that Panas was the first to advocate the instillation of oily preparations of eserine in large doses, two to five grains to the ounce, in order to reduce the tension and relieve the pain in those cases where an operation is not considered advisable. Castor oil is regarded as the best of the oils as a vehicle.

#### EXOPHTHALMIC GOITRE.

Deboves (*La Tribune Medicale*, January 16, 1904) calls attention, in some cases of goitre, to a peculiar condition of the blood vessels. The larger arteries are dilated while the radial artery is extremely small. Vessels of the neck are dilated, but the peripheral vessels are constricted. Treatment consists mainly of general tonics and improvement of hygienic conditions.

#### DENTAL DISEASES AND DISEASES OF THE EYE.

Nance (*Journal of American Medical Association*, April 2, 1904), in a very able paper, discusses "The Influence of Dental Diseases on the Etiology of Certain Ocular Disturbances." The literature of the subject, covering a period of about eighty years, is briefly reviewed, and it is shown that defective teeth are not infrequently the cause of "Orbital cellulitis and abscess, conjunctivitis, keratitis, corneal ulcer, iritis, scleritis, papillitis, mydriasis, lachrymation, amaurosis, amblyopia, strabismus, ptosis, interference of accommodation and paresis or spasm of the several muscles of the eye and lids."

#### THE ETIOLOGY OF NEW GROWTHS.

K. W. Monsarrat (*Brit. Med. Jour.*, June 27, 1903). The author thus summarizes the various points of his paper:

1. Cell activity and cell type must always be the resultant of bio-chemical reaction of the principles of which the researches of Ehrlich and others have enabled us to obtain some information.
2. Cell proliferation as a form of cellular activity is always the resultant of such reaction. When it takes place as the result of increased availability of normal food material, the new cells produced conform to the type of the parent cells. When it follows the action of assimilable materials of abnormal constitution new cell types are evoked, variants on the type of the parent cells.
3. Cell proliferation of the latter type takes place in certain micro-parasitic infections.
4. The new cell types thus evoked exhibit various degrees of instability.
5. In the granulomata (Infectionsgeschwülste) their stability is considerable; in certain growths which result from infective agents (for example, condyloma) the equilibrium of the new type appears to be stable.
6. In the so-called true tumours, cell types arise as variants on the normal cells of the organ or tissue of origin. The ways in which such cell variants may be evoked is not discussed, but that they may result in some cases from the action of micro-parasites is a reasonable view.
7. These cell types are stable; their stability is due to the capacity of the particular variant to attach to itself and assimilate material in conformity with its type.
8. In the simple tumours they are only locally stable, and are not immune to reactionary influences outside the tissue of origin and the normal relationships of parenchyma and connective tissue.
9. In the malignant growths they possess a wide range of stability and immunity, and the degree of this is the measure of their capacity to form metastases, while local infiltration, the other histological characteristic, is dependent on the principle of chemotaxis, the cells extending in those directions in which their variant and aberrant bio-chemical affinities enable them to annex material conformable to the building up of their characteristic type.

## Brooklyn Medical Journal.

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*Entered at Brooklyn, N. Y., post office as second-class matter.*

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BROOKLYN-NEW YORK, AUGUST, 1904.

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### CERTIFIED MILK.

The season is at hand when the work of the Milk Commission of our County Medical Society is most appreciated by the physicians of this borough.

The most important distinction which the milk bearing the certificate of the Society enjoys, is, that it is comparatively free from germs of all sorts. The fact that the milk is that of cows proved free from tuberculosis by the tuberculin test is a consideration more important in the minds of some physicians than in others. But, as a fact, it is one concerning which there can be no prejudice in the minds of any.

Certified milk is the cleanest, and the freest from dirt, dust and the ordinary impurities which deteriorate the quality of any milk produced.

It is a source of pride to the Society that it has had a hand in the production of food the most nearly ideal of any, other than breast milk, obtainable for the use of infants.

To the Milk Commission the JOURNAL extends the hearty thanks of the profession.

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### CANCER RESEARCH.

The interest of the world has been temporarily centered upon the medical profession of Great Britain through the interest manifested in their proceedings by the Prince of Wales at the recent meeting at London of the General Committee of the Cancer Research Fund. We believe that few doubt, in view of the tenor of the discussion on that occasion, that any general interest outside strictly medical circles would have been attracted to the proceedings but for the presence of this distinguished guest.

The progress of medical science has never, we believe, been materially advanced by public applause of scientific discoveries, except in so far that the attention of the people is directed to certain advances of which they themselves may take advantage. The Cancer Research Committee has no great amount of progress to report. The advice of the speaker referred to sums up in a nutshell the pith of all that the medical profession has to offer as to the proper attitude which the individual should assume toward this disease, when he said, "Consult the surgeons on the first appearance of any cancerous symptoms."

The hope that an anti-cancer serum might shortly follow the supposed discovery of a parasitic origin of the disease has had to be abandoned. The use of the X-ray is finding a useful but limited applicability. No new internal or external remedy has been found which is in any sense a specific. The fact remains that as yet each case must be considered and treated by the surgeon, individually.

The interest of the medical profession in the disease has not in any way diminished, and the outcome of a deeper interest is bound to result in improvements in methods of treatment.

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### ALIENS IN NEW YORK INSTITUTIONS.

It is earnestly to be hoped that the agitation now being created in favor of excluding certain undesirable classes of emigrants from our country, will be productive of practical results. Of the nearly fourteen thousand aliens supported in the public institutions of New York State, six thousand one hundred and forty-eight are confined in the various asylums for the insane, one thousand one hundred and thirty-six are supported in our hospitals, and two thousand one hundred and ninety-three are confined in jails and prisons. The law will doubtless soon be amended so as to debar from the country those who are likely soon to become public charges. Not only those who are insane when landed on our shores, but those who become insane within a comparatively few months or years of the time of landing should be returned to the land of their nativity.

This provision should be made because of the difficulty of determining the mental conditions of incoming aliens simply by the necessarily casual inspection to which they are subject on landing. Provision should also be made by law to deport all such as are found guilty and con-



victed of capital crime within a certain number of years of the time of their landing on our shores. Such provision would rid the State of the huge tax budget devoted to their support. It would likewise have a deterrent effect upon the criminal propensities of those newly arrived, as well as upon the ambitious efforts of foreign municipalities to rid their shores of their own criminal classes, by directly or indirectly aiding their deportation to America, rather than to assume, themselves, the expense of confining them in their own penal institutions.

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## MEDICAL NEWS.

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EDITED BY CLARENCE REGINALD HYDE, M.D.

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*It is earnestly hoped that all members of the profession possessing news concerning themselves or their friends, which would interest others, will communicate the same to the News Editor before the 9th of each month. Items for this department should be sent promptly to Clarence Reginald Hyde, M.D., 126 Joralemon Street.*

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Dr. and Mrs. Louis L. Nichols sailed July 16 for a European tour of two months.

Dr. Lewis S. Pilcher announces that during July, August and September he will operate at the M. E. Hospital on Mondays and Fridays at 10 A. M., and that he will be in his office on Mondays, 2 to 5 P. M., and Fridays, 9 to 12 A. M.

News comes of the serious illness from typhoid fever of Dr. Burdette O'Connor, formerly of this city. Dr. O'Connor is at present at Mackay, Idaho, where his mother and brother have gone to meet him.

It is with sincere regret that we chronicle the sad loss which comes to Dr. Herman T. Peck, of Hancock Street. On July 10 he received a telegram announcing the death by drowning of his father, mother, and sister during a yachting trip in Florida waters. The JOURNAL extends its sympathy to the Doctor in his triple bereavement.

Dr. Burr B. Mosher has recently purchased the former residence of Mrs. Henry Journeay, 15 Schermerhorn Street. The Doctor will retain his office in Temple Bar for another year.

Dr. Ferdinand Siegel, of 202 Rodney Street, announces that on July 7 his wife gave birth to a bouncing ten-pound girl, Beatrice Grace Siegel. Mother and child are reported to be doing very well.

At the Commencement Exercises of the Rhode Island College of Pharmacy and Allied Sciences, in Providence, June 8, the address to the graduating class was delivered by Dr. Albert H. Brundage, of Gates Avenue, this city. Professor Brundage occupies the Chair of Toxicology and Pharmacognosy.

Dr. George R. Fowler, of DeKalb Avenue, is at present in Salsomaggiore, Italy. He has recently been elected Emeritus Professor of Surgery in the New York Polyclinic Medical School and Hospital.

Dr. Henry G. Webster was recently appointed to the position of Assistant Visiting Physician to the Methodist Episcopal (Seney) Hospital.

Dr. James Watt, of Clinton Street, has received an appointment as Assistant Visiting Obstetrician to the Long Island College Hospital.

Drs. William C. Woolsey and George Cruikshank were recently appointed adjuncts in the Gynecological Clinic of the Polhemus Memorial Clinic.

Dr. G. C. Straub announces the removal of his office to 846 St. John's Place.

Dr. Thomas Darlington, President of the Health Department of this city, enlivened matters recently by wholesale transfers of all the Assistant Sanitary Superintendents, which was done, he said, for the "good of the service." Dr. P. J. Murray, of Brooklyn, was transferred to Queens, and Dr. Walter Bensall, of Manhattan, was sent to Brooklyn to take Dr. Murray's place. Dr. J. P. Moore, who was recently transferred from Queens to Richmond, was again sent back to Queens, the middle of July. His return was especially agreeable to his friends.

The authorities of the Church Charity Foundation, having in charge St. John's Hospital, of Brooklyn, will enlarge the purely charitable aspect of their work by making the hospital entirely free. There will be no more pay patients, and as many free patients will be taken in as there is money for, and no more. The maximum will be twenty-four patients.

The medical profession in Brooklyn is fast learning the advantages of automobiles over horses, and not a few of the best known practitioners are now riding in their own machines: Drs. Bristow and Glentworth Butler in a Stevens-Duryea; Dr. William Butler and Dr. Russell Fowler in Franklins; Drs. Pomeroy, Dickinson and MacNaughton in Waverly Electric Co.; Dr. Brinsmade in a Pope Electric; Drs. James Watt, William and Charles Pool in Cadilla Co.; Dr. Gildersleeve in a Knox; Dr. F. H. Stuart in a

White "Steamer"; Dr. Molin in a Northern; Dr. William Hutchinson in an Oldsmobile; and Dr. Herman T. Peck in a Knox. Many other physicians are also contemplating purchasing, among them Drs. Seymour, W. F. Campbell, Burr Mosher, Polak, B. H. Richardson, William H. Shepard and C. R. Hyde.

Dr. James R. Bird recently attended the fiftieth anniversary of his class at Trinity College, Hartford, Conn. There were twenty members of the original class present.

Dr. Stewart Lewis, of 13 Cambridge Place, is practising during the summer at Hulett's Landing, Lake George, N. Y.

The marriage of Miss Virginia Field, daughter of Mr. and Mrs. C. R. Field, and Dr. Albert T. Birdsall took place Wednesday night at the residence of the bride's parents, 521 Clinton Avenue.

The Kings County Hospital Alumni Club held the second regular meeting at 109 Cumberland Street, the residence of Dr. C. B. Bacon. The Committee on Constitution and By-laws made their report and a permanent organization was effected. It was resolved that the Club meet at least six times a year. The object of the Club is for the promotion of medical science and social intercourse among its members. The following officers were elected for the ensuing year: Drs. Victor A. Robertson, President; W. C. Woolsey, Vice-President; J. J. Wagner, Secretary and Treasurer. The following committees were appointed: Scientific, Drs. A. T. Bristow, C. B. Bacon, L. J. Morton; Membership Committee, Drs. Russell Rome, E. H. Fisk, C. H. McKim; Entertainment Committee, Drs. C. F. McGuire, H. Plympton, John R. Stivers. The following were present: Drs. Robertson, Bristow, J. R. Stivers, Plympton, McKim, McGuire, Bacon, Fisk, Rome, Woolsey, G. L. Stivers, E. G. Zabriskie, Wagner, W. S. Pugh, of U. S. Navy, and L. Emerson, of Orange, N. J.

## BOOK REVIEWS.

PROGRESSIVE MEDICINE. Vol. I. March 1, 1904. Surgery of the Head, Neck and Thorax—Infectious Diseases, including Acute Rheumatism, Croupous Pneumonia and Influenza—The Diseases of Children—Laryngology and Rhinology—Otology. Phil. & N. Y., Lea Bros. & Co., 1904. vii, 17-337 pp. 8vo. Price per annum (four vols.): Paper, \$6.00; Cloth, \$9.00.

The claim of authenticity, scholarship and thoroughness made by the publishers of this quarterly digest is neither inflated nor exaggerated. The corps of editors are men of international reputation, capable of sifting the chaff from the wheat and producing results which

are highly satisfactory to those who wish a reference book not merely of abstracts, but of well-arranged and well-digested material made ready for use by the thorough sifting to which it has been subjected.

The change of form and adoption of the paper cover is a decided improvement, and will tend to further popularize this publication, because it renders it cheaper and more convenient.

WILLIAM FRANCIS CAMPBELL.

DISEASES OF THE EYE. By L. Webster Fox, A.M., M.D. N. Y. & Lond., D. Appleton & Co., 1904. Col. front., xix, 584 pp., 4. col. pl. 8vo. Price: Cloth, \$4.00.

Another text-book on Diseases of the Eye has been added to an already extensive list of works of a similar character. Very properly, considerable more space than usual was accorded to the anatomy of the eye and its appendages. Special mention should be made of the original plates, showing the distribution of vessels and nerves of the lids. The Fox operation for entropion is fully described and illustrated. Chapter on Diseases of the Retina will be found to be quite instructive. Those interested in the history of ophthalmology will find pleasure in referring to illustrations which show, in outline, the different methods of cataract operation, from Daviel, in 1743, to the present time. It is noted that a keratome is preferred in performing an iridectomy for the relief of glaucoma. The Graefe knife is regarded as "a dangerous instrument in these cases." Of course, this opinion is not shared by all operators. Quite a useful formulary has been appended. A number of the formulas are from Darier. The glossary will be found to be a great convenience.

JAMES W. INGALLS.

THE PRACTICAL MEDICINE SERIES OF YEAR BOOKS. 1903. Vol. II. General Surgery, edited by John B. Murphy. Chicago Year Book Publishers, 1903. 556 pp. 12mo. Price: Cloth, \$1.50.

This resumé of the important advances in surgery during the past year is an exceedingly satisfactory compilation and intelligent selection from the vast mass of surgical literature which the past year has produced. The most important articles have been reproduced extensively and the salient points in others have been sifted and instructively commented upon. The advance in Gastric, Cardiac, and Prostatic surgery is notable.

The editor's comments and criticisms are terse, timely and instructive.

WILLIAM FRANCIS CAMPBELL.

THE AMERICAN YEAR BOOK OF MEDICINE AND SURGERY. Collected and Arranged with Critical Editorial Comments . . . under the General Editorial Charge of George M. Gould, M.D. For the Year 1904. Vol. I., Medicine. Vol. II., Surgery. Phil., N. Y. & Lond., W. B. Saunders & Co., 1904. 2 vols. 8vo. Price per vol.: Cloth, \$3.00; Half Morocco, \$3.75.

The high standard of excellence attained by this publication is ably upheld by the volumes for 1904. The division of the subject into two volumes, devoting one to surgery and the other to medicine, is a much more convenient way of presenting the large number of facts which must be dealt with. The editor is assisted by a distinguished corps of collaborators, and not only have the essential points of progress been brought out, but the notes and comments freely interspersed give the opinions of those competent to judge of the worth and value of the latest contributions to medicine and surgery.

WILLIAM FRANCIS CAMPBELL.



# BROOKLYN MEDICAL JOURNAL

VOL. XVIII.

BROOKLYN-NEW YORK, SEPTEMBER, 1904.

No. 9.

## ORIGINAL ARTICLES.

### FACTORS IN THE DESTRUCTION OF PRIMITIVE MAN.\*

BY FREDERICK A. COOK, M.D.

Surgeon of the Peary Arctic and the Belgian Antarctic Expeditions.

Brooklyn.

One of the saddest co-incidents in the advance of civilization is the rapid destruction of primitive man. All over the two Americas, from Greenland to Cape Horn, aborigines have been sadly swept from their happy hunting grounds by the first wave of Caucasian drift. It is perhaps fortunate for the newcomers that the strife has been so easily settled, but the rapidity with which the red man has been destroyed is nevertheless amazing. All students of wild life agree that the Indian has been reduced by the sins acquired from the pale-faced pioneers, and I think most of us believe that the intemperate use of alcohol and the introduction of venereal diseases have been the determining factors, but this is by no means in accord with my observation of the aborigines with whom I am familiar. My studies are limited to the Eskimo, the sub-arctic Indians, the Feugians, and the Patagonians. The deductions which I have made may not be true of all other American aborigines, but from the records which I have been able to gather, I believe that in the very early stages of the contact with our explorers a similar result followed.

All of the factors leading down to the final destruction of primitive life are too numerous and complex to note here. The scope of this paper is not aimed to be exhaustive, but suggestive. My object is not to treat elaborately Indian diseases, but certain phases of life-destroying elements, which appear to me prime factors in bringing about the great mortality everywhere noted.

One of the first results of racial contact is to alter the mode of life in the Indian. The long journeys in pursuit of game are shortened. There is a tendency to congregate in larger villages. The airy tents and temporary huts are replaced by more permanent but more easily infected houses.

The simple garments of skins are put aside for ridiculous cotton fabrics, and the normal diet of meat is substituted by farinacious and starchy foods. In a hundred ways the arts of life are quickly changed, and the poor deluded savage becomes a misfit. All of these changes tend to degenerate rather than uplift, and now the way is open for the final death blow by new diseases.

Climate is not, except in its influence upon disease germs, a very important factor in the downfall of aboriginal man. I am inclined to believe that an Eskimo could withstand the heat of the tropics, and we know that a negro can withstand the rigors of the arctic. It is not heat or cold which kills, but local disease tendencies. It is not, as is generally supposed, the inherent ability to withstand climatic conditions which protects primitive life under changed climatic surroundings, but adaptability and disease immunity. A Mexican can sustain health indefinitely in Siberia if he will adapt himself intelligently, and a Greenlanders would live in Africa if he could quickly attain the native immunity to local disease germs. Commander Peary has had in Matthew Henson, his colored servant, a superbly faithful supporter. Matt has followed Peary in all his frigid wanderings, suffering from frost bites and other hardships, but on the whole he withstood the necessary test of endurance of a polar quest nearly as well as the white explorers. Several groups of Eskimos have been brought to warmer zones, and they have all fared badly. They complained of cold in the winter and of heat in the summer, but the changed garments and the altered manner of life would, to a large extent, explain this. Very few of these arctic habitants have returned to their icy homes. They have fallen easy victims to tuberculosis, measles and other infectious diseases, and the destruction of these unfortunate Eskimos is a key to the whole problem of premature savage death.

Nearly all diseases now known are prevalent among the red men, and the attacks are usually most violent with the first introduction. It is remarkable to note how a comparatively innocent disease like parotitis will violently attack adults

\*Read before the Associated Physicians of Long Island, Central Islip, June 18, 1904.

and children alike with such force that a large portion of previously strong people will succumb. At Cook Inlet, Alaska, there was an epidemic of mumps last year, which disabled a large part of the adult population for six months. There seemed to be more deaths among adults than among children. Those that survived were attacked by pleurisy, pneumonia, tuberculosis, and other diseases, making permanent invalids out of previously healthy people. Thus the entire population was not only reduced in number, and in health, but the gathering of the food supply, which is taken in summer for the entire year, was necessarily omitted, adding the pangs of famine to the ravages of disease.

During centuries we have unconsciously developed a mild form of immunity and fortification against the onslaught of the prevailing infectious diseases. New epidemics have indeed swept Europe with surprising destruction, but given time, we have either eradicated the new enemy or adapted ourselves to it. The Indian has never done this. Diseases new to him have come with such rapidity that he has not been able to cope with the mysterious warfare. Even if he possessed the weapons with which to battle with germ infection, he has not had time to recoup and take advantage of the immunity and fortification which result from experience. Many things have combined to bring the downfall of the liberty loving aborigines, but no blow has been so hard as the warfare of the acute infectious diseases. And among these infections, the most fatal results have been brought about by what we regard as the diseases of childhood.

The influence of measles, whooping cough, mumps, scarlet fever, and allied diseases in the destruction of primitive man, has, to me been a very great surprise. Like most observers, I have been inclined to ascribe the downfall to alcohol and altered conditions of life, but my field work has not borne this out. I have had occasion to investigate several epidemics put down as small-pox among the Eskimos, and also among the Feugians, and where the studies have proceeded far enough to come to a definite conclusion, I have usually found these epidemics to be either chicken-pox or measles, but the symptoms proved to be so alarming and the results so fatal, particularly among adults, that the report of variola seemed justifiable. There was in 1896, an epidemic of measles among the Yahgans which resulted in a mortality of forty per cent. of the entire population, including adults.

Among the Onas, there was in 1899, an epi-

demic of whooping-cough, followed by a mortality of fifteen per cent. These people are probably the tallest, and surely the most magnificent specimens of human development. Still big and manly as they were, they succumbed quickly to pertussis. In a somewhat similar manner the fat, hardened and weather-proof Eskimos, men of iron, usually, in their almost inhuman strife for life, but they are easy victims to acute children's diseases. One of the most remarkable epidemics which I have noted was a scourge of chicken-pox among the Eskimos in 1893. Men, women and children were attacked, and for a time the severity of the disease led me to suspect small-pox, but a more prolonged observation proved positively that I had to deal with varicella. The death rate, however, was considerable, apparently greater among adults than among children.

The advantage of being near a trading post, and the tendency of congregating in larger villages, has brought about a system of better housing, which has proven very fatal. In the aboriginal habitations, a simple brush work or a skin tent, though wet and cold, satisfied their wants, but now they build small permanent huts, better adapted to protect the people against cold, storms and humidity, but worse, far worse, in offering facilities for the propagation of disease. At a mission station on an island in the Strait of Magellan, the priests pointed with pride to their work of constructing neat looking houses for native habitation. The so-called houses were mere boxes, well roofed, brightly painted, and so placed as to effectively keep out light and air. Tuberculosis was sufficiently prevalent to thoroughly impregnate the mud floor, and the average life of the Indian here in mission confines was less than three years. Yet the good, but short-sighted Christian workers, believed they were doing noble work. Here, as in all parts of America, if the Indian was encouraged to adhere to his nomadic habits, if he was encouraged to shift his camp frequently and return to shelter tents instead of death boxes, many thousands of worthy lives might have been spared.

There is among red men to-day a very great infant mortality, and this is due directly to the introduction of new diseases. The normal pure-blooded Indian is perhaps just as prolific as in his prosperous former days; but his offspring dies early. Only a few attain puberty, and then with no tribal life before them, with no desire to submit to what appears to them the indignities of civilized life, they settle into a lethargy and are mostly carried off by tuberculosis.



In the modern treatment of tuberculosis, the most potent factor is out-door life. It seems, therefore, a curious contradiction to assert that next to the acute infectious diseases of childhood, consumption is the greatest factor in destroying Indian life. The explanation of this is to be found in the ease with which modern Indian camps are infected. The field work of an Indian is the ideal life of a consumptive, but the camp life is about the worst that could be devised. A dozen or more people are crowded into a little log hut or tent; all expectorate on the floor. Their clothing is saturated with germs, the atmosphere is charged with poisonous dust, and everything here is favorable to the development of disease germs. Under such conditions one expects, and one really finds quite a universal dissemination of tuberculosis. Even the Eskimos, who live in the frosty areas beyond the Arctic circle, where the usual temperature is fatal to germ life, are sadly tuberculous.

This great Indian mortality is to some extent due to inefficient medical attendance and ignorance of ordinary rules of hygiene. But even under good care new diseases seem to infect the Indian with greater force. The imported malady is more violent in its onset, and the general course is more alarming. The Indian succumbs easily to germ infection, and the exanthemata are responsible for the greatest mortality.

In our experience with whiskey, we know that men are not easily killed by it, and a savage rarely has an opportunity to get enough to do him much harm. The worst effect of alcohol is not its physical injury, but the moral degeneration which it instills. The once industrious hunter is easily made a careless idler by a few debauches, and with the will power thus destroyed, an Indian is in the last stages of degradation. The venereal diseases have a similar effect.

The Indian's downfall may be divided into three stages. First, by infectious diseases, mostly exanthemata, early introduced by explorers and missionaries. Second, by alcohol and venereal diseases, which have come with the traders' good intentions. Third, by the destruction of savage ambition and altered conditions of life, introducing bodily degeneration which has led to the final death-knell by tuberculosis.

The points which I have aimed at here suggest the need of careful medical studies among primitive people before the inroads of civilization have altered their natural environment, and their peculiar modes of life. Unfortunately, this is a branch of scientific research which has been much

neglected by explorers, and in many localities the opportunity is forever lost. On the other hand, it seems clear that civilization brings with it a moderating influence upon its infectious diseases which is not possessed by the savage. It behooves us to determine the nature of this immunity and extend, if possible, its benefits to the descendants of our red predecessors. The Indian does not need Christianity or government support so much as he does a knowledge of how to protect his progeny against the new life-reducing agents. Dr. Holmes said that the proper treatment of some diseases should be begun one hundred years before the birth of the patient. This is certainly true of Indian diseases. We should begin now our treatment to save the few stragglers that will remain one hundred years hence.

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#### HISTORICAL RESUME OF CLINICAL TEACHING.

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BY WILLIAM SCHROEDER, M.D.

Member of The Medical Society, County of Kings—Brooklyn Pathological Society—Brooklyn Medical Society—The Associated Physicians of Long Island.

Any form of medical or surgical instruction given at the bedside or in the presence of the patient whose symptoms are to be studied, and the proper method of treatment considered and applied, would properly be considered clinical instruction.

The word "clinic" is derived from the Greek "kliné," a couch.

Dr. P. V. Renouard, in his "History of Medicine" (1856), presents the thought, "Nothing is better calculated to mature the experience of young men than those lessons which are given at the bedside of the sick. Hippocrates gained universal approbation by his clinical observations which he has transmitted to us."

The most ancient collection of clinical studies bears the title "Epidemics." In primitive times, when the science was only composed of a few notions, which were perpetuated by tradition without the aid of books, there was no other mode of the transmission in medical knowledge than by clinical teaching. But after the foundation of the school at Alexandria there is no further mention made, in the "History of Medicine," of instruction being given at the bedside.

The invasion of the philosopher into the domain of medicine was one of the principal causes of the abatement of clinical observations. The men of this class themselves imagined, and per-

suaded others, that it was not necessary in the study of nature to pause at the phenomena; but that the mind must penetrate beyond these sensible things. By this doctrine, clinical observation lost much of its importance, but the habit of observing and describing facts as they were developed was not entirely lost. The Coryphii of the empirical sect always remained faithful to it. In the earlier years of the Alexandrian school a considerable number of historical clinics were collected, after which the later nosographers, Aretaeus, Coelius, Aurelianus and others drew the portraits of a number of diseases. After the death of Galen, from the eleventh to the fifteenth centuries there have been transmitted to us but a small number of clinical facts.

Long after the revival of letters clinical teaching was still in oblivion, and this fact led Ph. Pinel to make the following reflection: "It seems," says the learned professor, "that the first editions of the ancient works of the Greek physicians, published at the commencement of the fifteenth century, should have led to the restoration of clinical instruction, and of the ulterior progress of medical observation; but this happy impulse of the mind was still retarded for more than two centuries."

Daniel LeClere, M.D., in the "History of Physic," London, 1699, states that Caius Pliny, A. D. 23-79, makes Hippocrates the author of "Clinic Physick," but Dr. LeClere has ascribed this to Æsculapius, for it is probable that it was not so late as Hippocrates' time that the custom began of visiting the sick at their beds.

John H. Baas, "History of Medicine," states that Thessalus (A. D. 60) was the original founder of the "Poliklinik." In Rome, during the reign of Nero, Alexander Severus gave a salary and rooms to the professors who took their pupils to the bedside for instructions. In the Arabian academies personal observation was less cultivated, though clinical instruction was also imparted. The Greeks also entered upon the clinical method of instruction, but with little or no advantage.

From Thompson Cooper's "Men of the Times," 1872, we find that Archibald Billing, A.M., M.D., F.R.S., was physician to the London Hospital and Professor of the Medical School, 1816 to 1836, where he instituted clinical lectures.

In "Disciples of Æsculapius," by Sir Benj. W. Richardson, M.D., we note that Herman Boerhaave, M.D., in 1715 was elected to fill the chair of practical or clinical medicine rendered vacant

by the death of Prof. Bidloo, University of Leyden. He was the first to give separate lectures on ophthalmology.

Nathan Smith Davis, M.D., LL.D., in his "History of Medicine," says: "True clinical instruction was given by William van der Straten of Utrecht in 1636, by Albert Kyper at Leyden in 1648, and by Sylvius of Leyden in 1658." To these are added, by Baas, in his "History of Medicine," Otto Heurnius and Ewald Schrevelius, at about the same time. In Prague, Cassini in 1690, and Dr. Tudetino in 1699, permitted the students to attend the evening visitation of patients.

Sylvius in 1658 first introduced the complete clinical method at Leyden, thus acquiring historical importance for himself, and by his great talent as a teacher he obtained such success that students flocked to him in great numbers from all lands, including Italy.

Clinical instruction at Leyden was permanently established by Herman Boerhaave at the beginning of the eighteenth century.

In "The Origin and Growth of the Healing Art," by Edward Berdoe, 1893, it is stated that Alexander Severus (225 A. D.) was the first who established public lecture rooms for teachers of medicine. There was no regular curriculum, nor period of studentship. Clinical instruction was given by the teachers, as Martial tells us in a satirical verse:

"Faint was I only, Symmachus, till thou,  
Backed by an hundred students, throng'dst my bed;  
An hundred icy fingers, chilled my brow:  
I had no fever: Now I'm nearly dead!"

The philosophy of Ranus, in 1562, urged Charles IX. of France to establish schools of clinical teaching, such as already existed at Padua.

In "Statues of the Medical Faculty at Frankfurt on the Oder" from the year 1588 we find among other requirements the following: "Besides he must have followed the practice of a Doctor for six months or more." This corresponds to our clinical instructions.

From "The Story of the University of Edinburgh," by Sir Alex. Grant, 1884, we learn that a system of clinical teaching was organized in the University previous to 1770. Instruction of clinical surgery was introduced in 1802.

James Russell in 1786 gave clinical lectures in practical surgery and continued so each year up to 1802, when he was made Professor of Clinical and Pathological Surgery.



In June, 1803, a commission from George III. created a Chair of Clinical Surgery in the University of Edinburgh with an endowment of £50 a year.

Alexander Monro, of the Edinburgh School of Medicine, 1721, was Professor of Clinical Surgery and, and Prof. Rutherford in 1784 of Clinical Medicine. Dr. Monro laid the foundation stone of true scientific and methodical teaching of medicine in England.

William Cullen, M.D., began to deliver clinical lectures on medicine at the University of Glasgow, in 1757.

F. C. Stewart, in "Hospitals and Surgeons of Paris," 1843, says, "Jean B. L. Baudens delivered 'Clinical Lectures on Gun-shot Wounds' in 1836 at the Military School and Hospital." Auguste Berard was Professor of Clinical Surgery in 1842 at the Hospital Necker and La Pitie, and Alfred A. L. M. Valpean Professor of Clinical Surgery at the School of Medicine in 1830.

From "William Stokes: His Life and Works," 1898, we find that he was appointed to Meath Hospital in 1826. His first task, aided by Robert J. Graves, was to effect a sanitary and much needed reform in the system of clinical teaching. Up to this time practically no attempt had been made in this direction, the students doing little more than "walk the hospital." The result of the change was that students came from the Continent and from America to attend the Meath Hospital Clinique.

In the "Life of Sir Benjamin C. Brodie," 1898, it is related that the subject of this biography entered St. George Hospital, London, in 1808. The introduction at this time of the appointment of clinical clerks to make careful notes of the surgical cases, so as to present the daily changes, was made. This led him at this period to begin a course of clinical lectures on surgery, the first lectures of the kind ever delivered in a London hospital.

The "History of Medicine," by Alex. Wilder, M.D., Eclectic, 1901, says that clinical instruction in hospitals was introduced in the University of Padua by Giovannide Monte, who lectured on the patients at the Hospital of St. Francis.

T. L. Bradford, M.D., in his "History of Medicine," Homœopathic, 1898, makes no reference to any clinical teaching in that school.

Clinical teaching in America may be better understood when we consider that before medical schools were established in this country there were about 3,500 physicians claiming to be equipped to practice the healing art, and so en-

gaged in the colonies at the time of the American Revolution. Of these no more than 400 had received medical degrees. It was the custom during this period, and for some time after the establishment of the Republic, for medical students to derive their professional training from practitioners, or as they would be called to-day "preceptors." His opportunities for clinical study consisted in witnessing and often assisting in the office practice of his master, after a time his clinical opportunities being enlarged by visiting with his teacher the patients of the latter in private houses, and becoming acquainted with the protean phases of disease.

This was the origin of clinical teaching in America. From this beginning it has advanced step by step, until to-day it is looked upon as the method of teaching in every medical college in this country.

The pioneers in our art have written a few papers upon medical topics the titles of which usually indicates their clinical nature, as for instance the following:

1753—"Observation on Epidemical Sore Throat."

"Observation on the Fever which prevailed in the City of New York, 1741-1742," by Cadwalader Colden.

1802—"Practical Observations on Vaccination," by Dr. John Cox.

These indicate that the method of study at this time was largely by clinical observation.

Dr. Joseph Carson, in his "History of the Medical Department of the University of Pennsylvania," records the following: "The Medical School of the College of Philadelphia was announced to the public on September 26, 1765. Dr. Thomas Bond, one of the physicians of the Pennsylvania Hospital, commenced a course of clinical lectures in that institution. His first lecture was publicly delivered on December 3, 1766. It is a clear exposition of the advantages of clinical instruction in connection with medical education.

The Pennsylvania Hospital was the first institution used for clinical instruction in this country. During the years 1796-97, Benjamin Rush, M.D., LL.D., prescribed and delivered to his pupils twice every week at the Hospital. After a time it was found that the class became too large for this form of demonstration in the hospital and it was abandoned. In its place the presenting of proper cases before the class in the amphitheatre was adopted. To Benjamin H. Coates,

M.D., credit is due for putting this method of demonstrating and of lecturing into operation in the Pennsylvania Hospital in 1834. George B. Wood, M.D., who succeeded Benjamin H. Coates in 1841, pursued the same method, and also Dr. Randolph, who took charge of the Surgical Clinic. D. Hayes Agnew, M.D., LL.D., in his lecture on the "Medical History of the Philadelphia Almshouse," delivered October 15, 1862, makes this statement: "That we may claim for that institution the establishment of the first obstetrical clinic." Students of good character were allowed to attend cases of labor, and the various stages of the process were explained to them by Drs. Thomas Bond and Cadwallader Evans, under whose personal direction these instructions were conducted as early as 1770, the instructions being somewhat irregular until after the evacuation of Philadelphia by the British. In November, 1778, the subject was revived, but with little success until 1805, when Drs. John Church and Thomas C. James were given the privilege to deliver clinical lectures to a class of students twice a week in the green or dead-house. These clinical lectures were continued at the almshouse under different instructors until 1845, when the lectures were to be delivered at the Pennsylvania Hospital. Jacob Randolph, M.D., was the first clinical lecturer on surgery in 1847.

In 1841 the system of dispensary clinics was adopted by the University of Pennsylvania. They were conducted by Drs. William Gerhard and William P. Johnson.

J. F. Gayley, M.D., in his "History of Jefferson Medical College," informs us that clinical instruction was first adopted at the organization of the college in 1824.

The earliest reference to public instructions in Bellevue Hospital will be found in a note that appeared in the *Medical Repository* for 1804, stating that a lying-in ward had just been established in the almshouse, and that as a sufficient number of cases occurred there Valentine Seaman, M.D., had begun a course of lectures on the obstetric art, including anatomy, physiology and practical parts, and as the establishment is particularly and exclusively devoted to the education of females, it will be easy for women who practice or intend midwifery to avail themselves of it.

John W. Francis, M.D., LL.D., in his address in 1847, makes the following statement: "William James MacNeven, M.D., delivered the first course on clinical cases as they occurred in the then City Almshouse, during the first session of

the College of Physicians and Surgeons, N. Y., in 1807."

John Shrady, M.D., in his "Contributions to Medical History in the City of New York," states that Valentine Seaman, M.D., Attg. Surg. to the New York Hospital from 1796 to 1817, and a native of Long Island, made the first attempt to give clinical surgical instructions in the New York Hospital. Edward Miller, M.D., performing the same labor on the medical side. The biography of Edward Miller, M.D., published in 1814, gives the following: "Dr. Miller was appointed physician to the New York Hospital in 1806, and soon afterwards received the appointment of Clinical Lecturer in that institution."

D. B. St. John Roosa, M.D., LL.D., in his "History of the Old New York Hospital," states that it has always been pre-eminently a medical school. It was one of the first, if not the first, institution in our country to place itself open for clinical instruction. There was a good surgical amphitheatre in each building. It was a most interesting scene for us, students and members of the house staff, to see the venerable Drs. Valentine Mott, Alex. H. Stevens, Willard Parker, T. M. Halsted, Thomas M. Markoe and John Watson sitting about in the pit, and giving their opinions in a formal manner upon a case whose history had been presented to the class.

Appleton's "American Biography" informs us that Alexander H. Stevens, M.D., LL.D., was Attg. Surg. in the New York Hospital from 1817 to 1839. A year after his appointment he introduced the European system of surgical demonstrations and instructions at the bedside. During the years 1837 and 1839 he held the chair of Clinical Surgery at the College of Physicians and Surgeons, N. Y., and in 1837 published a volume of clinical lectures on "Injuries."

John C. Dalton, M.D., LL.D., in his "History of the College of Physicians and Surgeons, N. Y.," makes this statement: "The College Clinic was established in 1841 by the sagacity and enterprise of Willard Parker, M.D., LL.D. In the preceding year a number of private pupils had been taken to the Northern Dispensary to witness there the methods of diagnosis and treatment. This method was introduced into the college and the patients from the dispensary and elsewhere were examined and treated in the presence of the class. This was the beginning of the entire system of College Clinics."

Robert J. Carlisle, M.D., in his "History of Bellevue Hospital," presents the following interesting facts: "The new Medical Board met and organized



on November 17, 1847. The most important results growing out of the new medical administration was the accomplishment of that which for many years had been looked upon with much concern by the best medical men in the city, *i. e.*, the great loss to teachers and students alike of the clinical material which might be availed of at Bellevue. The question has been presented in the medical and secular press with the final result that on Friday, March 2, 1849, the amphitheater in Bellevue Hospital was formally opened by an address by D. Meredith Reese, M.D. This was followed by the first public clinic. The clinic was a surgical one, and William H. Van Buren, M.D., LL.D., was the operator. Notice was given that thereafter students would be admitted without charge to attend clinical lectures on every Friday at one P. M."

In 1860 Abraham Jacobi, M.D., LL.D., formed a special clinic for Diseases of Children in the New York Medical College, and in 1865 in the University Medical College.

*The Brooklyn City and Kings County Record* for 1855 contains the following on page 60: "Orthopædic Institution for the cure of Bodily Deformities and Diseases of the Joints, founded by Louis Bauer, M.D., 457-461 Pacific St." and among other statements is the following: "Occasionally Dr. Bauer delivers clinical lectures at the institution." In 1857 the Clinical Department of the Long Island College Hospital was organized at 145 Court Street, and in 1859 Louis Bauer, M.D., M.R.C.S., delivered two clinical lectures on "Hip-joint Disease and Contraction of the Knee Joint with false Anchylosis," at the Long Island College Hospital, on Henry street.

Darwin Clovin, M.D., of Wayne County, N. Y., read a paper before the New York State Medical Association, October 11, 1894, on "Reminiscences of a Country Doctor," in which he said that clinical teaching in any of the branches of medicine was unknown in this country in 1844. Yet I believe the distinguished Mott, about this time, established a surgical clinic in the University of the City of New York.

In 1849 Henry J. Bigelow, M.D., LL.D., in his "Inaugural Lecture before the Medical School of Harvard College," says: "Clinical study is bedside study. Here one learns at once the language of disease, and the language of suffering humanity."

In 1822 students were admitted to the Massachusetts General Hospital twice a week, where clinical lectures were delivered by Dr. Bigelow.

"Albany Medical College." A circular was

published in 1838, "Clinical Opportunities in the Hospital and County Almshouse," *American University Magazine*, 1897.

In the Medical Department, University of Buffalo, 1847, clinical teaching was pursued at the Sisters of Charity Hospital. Austin Flint, Sr., M.D., LL.D., made his observations here on Typhoid Fever, which was the beginning of his clinical work.—*American University Magazine*.

The Medical Department of Columbia University, D. C., was organized in 1821. Clinical teaching was introduced shortly after its organization.

As clinical instruction is now universal in all medical colleges the above is interesting. All medical men are agreed upon one point, that it is the best method of instruction.

#### BENZOYL-ACETYL-PEROXIDE IN THE TREATMENT OF TYPHOID FEVER.\*

BY W. W. ROSS, M.D.,

Brentwood, L. I.

Consulting Physician, Manhattan State Hospital.

The time-honored aphorism, "Typhoid Fever must run its course," was, until recently, as frequently heard as ever. The bacillus of Eberth has held, until lately, as undisputed sway as years ago. We have been almost as content in the treatment of typhoid fever to be directed by events as to direct them. We usually wait until the vital force is weakened and then try to make it strong by stimulation. That the treatment of bacterial intestinal disease has been an unsettled problem is proven by the readiness of medical men to adopt new methods of treatment. During the medical life of the writer the treatment of typhoid fever has changed almost completely three or four times. Features of treatment that were once considered essential are no longer thought of value. There has ever been a hope that some intestinal antiseptic would be found, harmless to living tissue, and capable of destroying intestinal bacteria, or of rendering their product innocuous, and thereby eliminating many of the most serious symptoms, and the gravest danger in typhoid fever. This expectation has been practically realized, in the discovery about three years ago, by Profs. Novy and Freel, of the University of Michigan, of a new chemical substance and described by them as benzoyl-acetyl-peroxide, known also as acetozone by its manufacturers, Park Davis & Company. It is a member of that theoretical chemical group of which peroxide of

\*Read at a Meeting of the Associated Physicians of Long Island, at Central Islip, June, 18, 1904.

hydrogen is one of the simplest members, and nothing else has hitherto been known which approximates its characteristics; but it differs from peroxide of hydrogen in being possessed of much greater germicidal power, and in the way of giving up its oxygen. Biologically acetozone is inert, but under certain conditions develops remarkable germicidal activity. In the presence of water it slowly undergoes hydrolysis. The compound is broken up and resolved into other compounds by taking up the elements of water. This change is necessary to develop its power. It is soluble in water in the proportion of one to one thousand, and is decomposed by heat; contact with alkalies and organic matter of all kinds. Quoting from the article of Novy and Freel, in the *American Chemical Journal*, for some may not have read it, the hydrolysis of benzoyl-acetyl-peroxide occurs in two directions, resulting in the formation of benzo-peracid and acetic acid, and aceto-peracid and benzoic acid. Some unchanged benzoyl-acetyl-peroxide reacting upon the benzo-peracid, results in the formation of insoluble benzoyl peroxide and aceto-peracid. The aqueous solution contains dibenzoyl peroxide, some acetic and benzoic acid, some benzo-peracid, and chiefly aceto-peracid. It is seen, therefore, that the active germicidal agent is not benzoyl-acetyl-peroxide, but acetyl-hydrogen-peroxide, one of its hydrolytic products. The available oxygen of acetozone undergoes no such rapid disengagement as is seen in peroxide of hydrogen, which readily and even violently gives up its oxygen in the presence of organic fluids. Acetozone has no constitutional effect. All experiments on animals and on men indicate that acetozone is not possessed of poisonous action, even in comparatively large quantities, and is entirely harmless to mucous membrane in a saturated solution.

Profs. Novy and Freel report having fed students on milk and acetozone for several days. During the entire time the feces were entirely sterile, and the men entirely healthy. Prolonged intravenous injections in rabbits did not produce death. Guinea pigs receiving 5 c.c. of the saturated solution intra-abdominally daily for thirty days were unaffected and even increased in weight. A dog fed three grammes of acetozone daily for three weeks was unaffected.

Novy reports that water containing one million typhoid bacilli per c.c., was rendered sterile in fifteen minutes by adding crystals of acetozone. A saturated aqueous solution has rendered sterile in less than fifteen minutes pieces of muslin cov-

ered with green pus and golden pus. The intestines of rabbits, kept without food for twelve hours, were rendered sterile in twelve hours more by giving a saturated solution of acetozone by mouth every two hours. Rabbits untreated gave a copious growth of characteristic bacteria. Dr. Eugene Wasdin, of Buffalo, in his series of typhoid cases, found one case whose stools became absolutely sterile during the second week of the disease.

Prof. Novy, in his laboratory experiments, believes the germicidal action of acetozone to be much greater than that of any other antiseptic, considering the extreme dilution in which it is useful, this being, he says, a thousand times greater than peroxide of hydrogen. Acetozone is germicidal in the strength of one to 33,000.

Acetozone is an antiseptic so far as my own experience goes, in seventeen cases, and in the experience of other observers aggregating several hundred cases, entirely without disadvantage or poisonous effects, and may be used freely to destroy germs wherever they exist, in the intestinal canal or in an abscess, in the eye or on any infected object. Not a single ill effect has yet been discovered by any observer in the use of this chemical, though as large quantities of the saturated solution as it has been possible to get the patient to swallow have been used and continued for a long time.

All recorded experience and all experimental evidence indicate that acetozone is effective in any disease due to bacterial origin if it can be brought in contact with the affected area; and, comparatively, its effect as a general antiseptic is superior to the commonly used antiseptics.

Probably its largest use has been in the treatment of typhoid fever, for here it produces truly marvelous effects. The number of reported cases now reaches into hundreds, and it has become the treatment of typhoid fever in the most prominent hospitals of the largest cities of the West, and reports are now in existence from Australia and the Philippines. Yet no longer ago than last summer it was an almost unknown drug to the medical profession of the East.

The uses of the drug suggest themselves. Its largest use has been in bacterial intestinal diseases. Its great germicidal power, and harmlessness to living tissue, permits its use anywhere and in any cavity of the body wherever this powerful peroxide and the infected area may be brought into contact. It is almost invaluable in purulent affections. In one of my own cases it diminished the formation of pus one-half in



twenty-four hours. In gastro-intestinal troubles with fermentation its effects are striking. In one of my own cases excelling every other drug used, and producing relief in one day.

In aqueous solution it is more efficient by far and less expensive than peroxide of hydrogen in the treatment of all bacterial diseases of mouth, throat and nose; and there is reason to think that it will prove an efficient prophylactic against the bacterial diseases in which the mouth is the principal avenue of infection.

The method of administering is preferably by giving in divided doses in twenty-four hours thirty to forty ounces of a saturated solution. Since it is decomposed by organic matter it should be given on an empty stomach. A saturated solution is made by dissolving fifteen grains in one quart of water at a temperature of ninety degrees. It is necessary to shake or stir vigorously for a few moments and then to allow the hazy solution to stand two hours for hydrolysis to begin. It should then be kept on ice. The solution should not be kept longer than forty-eight hours, for it becomes weaker. If the taste is disagreeable to the patient it may be satisfactorily flavored with lemon, or orange, or saccharin. It may also be given in capsule, and immediately afterward the patient should drink from four to eight ounces of water. This was necessary in one case herein reported because of vomiting induced, due apparently to the taste, for the child took easily and retained without difficulty most of the time the half glass of water taken immediately afterward. Acetozone has been used also by intravenous injection.

The one practical point is to give the patient all of the saturated solution that he will drink to the exclusion of other fluids except food.

The literature of the practical usefulness of acetozone is interesting, and it seems best to refer briefly to the experience of others. Dr. F. G. Harris, a member of the Cook County Hospital staff of Chicago, reports 128 cases of typhoid fever treated with acetozone, and concludes his study in these words: "What Virchow calls the 'brute force of figures' cannot but convince any one that acetozone lowers the temperature; shortens the duration of fever, and lessens its toxic symptoms more than our better known treatments, and says further that where cases can be seen early during the first week of the illness, and given large amounts of acetozone solution regularly and often, assisted by a gentle laxative, the temperature will return to normal in from ten to twelve days."

Drs. Abt and Lackner, of the Michael Reese Hospital, Chicago, report forty cases of typhoid fever in children with two deaths; one from pneumonia and pulmonary edema on the twenty-eighth day, and the other from great pyrexia on the fifth day. They were all treated with acetozone in aqueous solution flavored with orange extract. The average duration of illness from inception to convalescence, including two in which relapses occurred, was 23 6-10 days; average duration of fever after acetozone was begun was 13½ days.

Dr. G. H. Westinghouse, of Buffalo, reports in the *Buffalo Medical Journal* for August, 1902, forty cases admitted at the Sisters of Charity Hospital during all stages of the disease, and suffering from many complications, all treated with acetozone and without a single fatality.

Dr. Kitchen, in the Butler epidemic treated thirty cases with only one death, and that in a man who had been intemperate and had had chronic bronchitis for years.

Dr. N. S. Davis, of the Northwestern University of Chicago, reports in the *Illinois Medical Journal*, for January, 1904, fifty-nine cases of typhoid fever treated at Mercy Hospital with acetozone, and twenty-one cases without, showing that acetozone shortened the disease about one week.

Dr. Brewster, Professor of diseases of children, in the Butler County Hospital, analyses his experience, and says acetozone is a powerful germicide, and its use constitutes the treatment par excellence in typhoid fever.

Dr. Crosson, at the meeting of the South Carolina Medical Association, on April 17, 1903, reported his experience with acetozone and says it justifies the belief that acetozone is the most promising remedy ever placed in the hands of physicians, wherever germicide is needed, particularly in typhoid fever, in which it destroys the typhoid bacillus and prevents absorption of ptomaines without destroying the patient.

Dr. Eugene Wasdin, of Buffalo, treated forty cases at Sisters of Charity Hospital in 1901 without a single fatality, though patients were admitted in all stages and suffering from many and varied complications, and says that acetozone as an intestinal antiseptic is unequalled by anything that he has ever employed.

All bowel symptoms completely subsided in every case of typhoid within a few days after the beginning of its use.

Dr. Evans, a member of the faculty of the University of Illinois, says that acetozone shortens

the disease, betters physical and mental condition, and decreases intestinal toxæmia.

Dr. Brack, of the College of P. & S., Baltimore, shows from his report of cases a ready response to the effect of acetozone in typhoid fever.

Dr. Driscoll, of Chicago, concludes from his studies of acetozone that it precludes the necessity of any other treatment. It answers every requirement—all his cases recovered.

Dr. Mullbury, of Windham, says that in his experience acetozone has almost a specific effect in typhoid.

Dr. Christman, of Allentown, Pa., has treated fifteen cases—every one benefited, all recovered without complication.

Dr. Street, Professor of Practice of Medicine, at the Baltimore College, reported in October, 1903, twenty-six cases treated in the Maryland General Hospital. One death from acute edema of the larynx. Average duration of the fever 18 1-3 days. Acetozone was the only remedy used.

Dr. Myers, of Vicksburg, Miss., reported in the *Mississippi Medical Record* for October, 1903, his experience in typhoid fever, and concludes that by the use of acetozone all bad symptoms are mitigated, patients become comfortable, character of stools improve, progress of disease checked, and temperature declines. If time permitted, quotations from the experience of many other observers might be added.

This drug has the endorsement of many of the best students of medicine, and the best practitioners in this country. It is used by many members of medical faculties, and is used in many hospitals of our largest cities. All this was a sufficient reason for making use of the drug. The writer began its use in July, 1903, and offers for your consideration the following reports:

CASE I.—Man aged 40; condition becoming serious from toxæmia; foul movements; marked stupor; temperature 104; acetozone given on the fourteenth day; in 48 hours temperature 102; in seventy-two hours temperature 100, and did not rise again above that point. Stupor, delirium, tympanites, diarrhea and coated tongue all disappeared in seventy-two hours; convalescence established on twenty-first day.

CASE II.—Man aged 36; on the eighth day of illness temperature 105; respiration 50; pulse 150 and very feeble; almost complete stupor; slept with eyes open; extreme tympanites; acetozone began on the eighth day; in forty-eight hours tempera-

ture 102; respiration 30; pulse 90; flatulency, stupor, and diarrhea disappeared; tongue became moist; in ninety-six hours temperature 101½°, and did not again go above this point until use of drug was withdrawn for four days, when all the symptoms recurred. Drug resumed with same favorable results, convalescence established on twenty-eighth day, but use of drug in small doses continued one week longer. This was a very severe case, and I am sure would have died under any other treatment with which I am familiar.

CASE III.—Man aged 30; on the fifth day temperature 104; tongue dry and brown, flatulency, diarrhea and delirium present. Acetozone begun on the fifth day; in forty-eight hours temperature 101, and did not again go above this point, all symptoms strikingly improved; drug continued in smaller doses; convalescence established on twentieth day.

CASE IV.—Woman aged 27; wife of Case III; typical case; acetozone begun on the fourth day, temperature 103; in forty-eight hours temperature 102; no delirium, tympanites, diarrhea or dry tongue developed; convalescence established the nineteenth day.

CASE V.—Man aged 38; this man had complained for three weeks of headache, malaise, indigestion and slight fever, and yet continued working at his trade, being treated by his physician for malaria. I saw him in the beginning of the fourth week. He was obviously suffering from typhoid fever then. Temperature 104, and a well developed rose rash was present. Under acetozone his temperature fell to 102 in forty-eight hours, and did not again rise above that point. He made an uneventful recovery, convalescence established on the twentieth day.

CASE VI.—Man aged 40; a very severe case; toxic in character; marked cerebral symptoms; his temperature was 106; pulse 150, very intermittent; respiration 60, almost complete stupor; incontinence of urine and feces. It was the opinion of several medical men who saw this case that he would die. Acetozone could not be given until the tenth day because of inability to procure it. Under the use of 32 ounces of saturated solution a day the temperature came to 102½ in forty-eight hours, and did not again go above this point; respiration 30, pulse 100, and all severe symptoms subsided in seventy-two hours. He made an uneventful recovery, and convalescence was established on the twenty-fourth day.

CASE VII.—Man aged 45; a very severe toxic case. Delirium constant; pulse feeble and inter-



mittent; tympanites extreme; movements very foul in spite of large doses of calomel and epsom salts. Acetozone commenced on 14th day; all severe symptoms gone in four days. An uneventful recovery; convalescence established on twentieth day.

CASE VIII.—An average case; temperature 103 on fourth day. Acetozone began on fourth day; temperature 102 on the next day, and did not rise higher again. Convalescence on twentieth day.

CASE IX.—Man aged 30; another average case; temperature 104 on 6th day. Acetozone given as usual; in two days temperature 103, in three days 102, and remained here or below. No severe symptoms, convalescence established on nineteenth day.

CASE X.—Female child aged 9; rather delicate from birth. This patient was the daughter of Case VI, and the disease developed two months after her father's illness. The symptoms were severe only in temperature (106) and in flatulency. Acetozone was given throughout. It was the only case that there was difficulty in retaining the drug. It was necessary to give it in 2 grain capsules and then to have the patient drink from 4 to 6 ounces of water, and even then, at times, it had to be suspended one or two days at a time because of vomiting. When the child took acetozone for three days in succession the temperature would fall to 102 or lower; when it was suspended for a day the temperature would begin to rise, and in forty-eight hours would reach 105 to 106. This was the longest case; convalescence did not begin until the thirty-sixth day, yet there were no complications and the child made a good recovery.

CASE XI.—Man aged 20; an average case; temperature 104 on sixth day. Acetozone began then. In two days temperature was 103; in three days 102; and fluctuated between 102 and 103 for two weeks. No flatulency or diarrhea or stupor developed. He was hungry all the time. Convalescence was established on the twenty-fourth day.

CASE XII.—Cases of chronic intestinal catarrh with moderate diarrhea. A child aged 2 years; poor digestion from birth. Began to have intestinal fermentation and diarrhea and to show a weekly loss in weight in June, 1903. All methods of feeding and all medication did not check the progressive loss of weight. In September I began the use of acetozone, giving 6 grains a day in the form of saturated solution. In one week fermentation and diarrhea ceased; the child gained

2 ounces; the second week 6 ounces, and continued gaining until the family returned to the city, one month later.

CASE XIII.—A girl aged 18, a recent case now under treatment; a delicate constitution; developed an indefinite illness; on the 19th day developed iliac tenderness and a rose rash. Temperature 102 to 103; very apathetic. Acetozone given as usual. Temperature slowly came to normal in six days and remained there. Acetozone stopped because patient complained of taste. In two days temperature began to rise; acetozone resumed, and in five days again reached normal. Cases XIV, XV, XVI, were all cases of seborrhea sicca—all very successful.

CASE XVII.—Abscess cavity from appendicitis, enormous secretion of pus; case not doing well; cavity filled with saturated solution of acetozone; the next day pus diminished half—in four days almost ceased.

The diagnosis in the typhoid cases was made on clinical symptoms with a well developed rose rash in all but two cases, and the Widal test and a blood count in these cases confirmed the diagnosis.

CONCLUSIONS.—All the cases showed surprisingly uniform results; all recovered. The temperature began to fall within forty-eight hours, and within seventy-two hours it had fallen from 2 to 3 degrees, and did not again go above this point except in one case, Case X, where there were exacerbations due to inability of the child to take the drug continuously. Had I thought of flavoring the solution for this case I believe that there would have been no trouble in administering it. The disease was uniformly shortened an average of one week when the drug was begun early, and shortened three or four days in all the cases except one.

The intestinal symptoms were entirely relieved in about seventy-two hours. The feces were completely deodorized; in about the same time diarrhea, when present, ceased. This, aside from benefitting the patient, would almost make the use of the drug desirable. The tongue became moist and cleaner; the heart action became stronger; stupor and delirium disappeared; relapses did not occur except in one case, and in that one the drug was stopped before convalescence was fully established; the relapse was cut short in four days; there was no hemorrhage and not a single complication, and the patients were comfortable throughout.

Acetozone in my hands has proven an efficient intestinal antiseptic, and is not equalled by

any drug of which I have any knowledge. It is apparently as strongly antiseptic as any known germicide, and at the same time entirely innocuous and harmless to the human body. There was regularly a diuresis and an increased elimination of hippuric acid—perhaps it is in this way that the drug passes off. The treatment of the cases was entirely satisfactory—two of them were seemingly hopeless before beginning acetozone. I did not observe a single unfavorable effect.

There was no need of any other treatment except gentle laxatives. The salines seemed to enhance its value. These thirteen cases of typhoid fever have done better than my former patients have done on any other plan of treatment. Acetozone is, I believe, bound to play an important part in the treatment of typhoid fever. The treatment of this disease will be on a more scientific basis when acetozone is adopted than ever before. The Brand method of treatment has been almost general, but it sinks into second place by the side of a method which is entirely comfortable to the patient and which will cut short the duration of fever; cause it to run on a lower level; prevent cerebral symptoms, and practically abolish all intestinal symptoms, thereby eliminating the danger of tympanites, toxemia, hemorrhage and perforation. Thirteen cases alone do not go far toward establishing the value of a drug, but taken in connection with other reports I believe that we have in acetozone the best intestinal antiseptic yet discovered. I have more confidence in approaching the treatment of typhoid fever than ever before in my personal experience with 307 cases. An average of 210 grains of acetozone per patient was used in the typhoid cases. In two cases only 120 grains were needed to bring the temperature to normal. This, gentlemen, in the words of an honored member of this association, is my contribution to the treatment of typhoid fever for the year 1903.

## PROCEEDINGS OF SOCIETIES.

### MEDICAL SOCIETY OF THE COUNTY OF KINGS.

June 21, 1904.

PAIN, ANOMALOUS IN LOCATION AND CHARACTER,  
IN THE DIAGNOSIS OF SOME OF THE DISEASES  
OF THE ABDOMINAL AND THORACIC  
ORGANS.

#### *Discussion.*

Dr. WILLIAM J. CRUIKSHANK: I have listened with pleasure and also with great interest

to the reading of Dr. Elsner's paper. The portions of the paper which particularly interested me, however, is that which is devoted to the consideration of abdominal symptoms which seem to be the result of acute inflammatory disturbance occurring in the thoracic cavity. It is a well recognized fact that acute abdominal symptoms, including pain and tenderness, particularly in the right iliac region, may have their origin in a deep-seated pneumonia. A lack of appreciation of this fact by the physician may lead to frequent errors in diagnosis. The suggestion that an appendicitis may be mistaken for a pneumonia seems at first thought to be almost impossible, and yet observation and experience teaches that the pneumococcus or other etiological factor in the production of pneumonia may infect almost any tissue in the human organism and also that the clinical pneumonia produced by such infection may present symptoms which are so remote from the seat of original lesion as to greatly mislead the professional observer. I have noticed that recent German medical literature has devoted considerable space to the discussion of this point. It is, however, to the *painless* distension of the abdomen which frequently occurs during the progress of acute pulmonary inflammation that I asked permission especially to refer. During the past several years, particularly since epidemic influenza has become so prevalent in this country, I have met with many of these cases of painless distension of the abdomen complicating acute pneumonia, and I have been forced to the conclusion that unless it is treated early and somewhat energetically it must be regarded as a grave condition. It is, I believe, a paresis of the intestine probably due to an infection of the sympathetic involving especially Auerbach's and Meissner's plexuses. A few years ago McBurney and Stimson, in discussing acute inflammatory conditions of the vermiform appendix, called attention to a complication of appendicitis which Stimson described as intestino-peritoneal-septicemia. The condition was at that time regarded as being very dangerous to life, indeed, it was suggested by both these observers that when it was thoroughly established it was invariably fatal.

It is characterized by an absolutely painless and slowly distending abdomen with intestinal paresis so marked as to suggest acute obstruction. A similar, but less prominent, condition undoubtedly exists in these cases of acute pneumonia which are complicated with ballooning of the intestine, together with a complete absence of pain. In the treatment of acute pneumonia, of



whatever variety, occurring either in the child or the adult, daily examinations of the abdomen should be made by the attending physician for the purpose of the early recognition of any tendency in the case, to the development of this grave complication. Should the slightest painless distension of the abdomen be discovered, it should be regarded carefully and treated without delay by the use of stimulating enemata and also by the internal administration of intestinal antiseptics, together with the proper use of strychnine.

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## BROOKLYN PATHOLOGICAL SOCIETY.

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450TH REGULAR MEETING, MAY 12, 1904.

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HENRY G. WEBSTER, M.D., Editor.

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The President, J. C. MACEVITT, M.D., in the Chair.

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### THE DEVELOPMENT, ANATOMY AND PATHOLOGIC LESIONS OF THE GENITAL TRACT IN WOMEN.

Dr. H. P. DEFORD: The subject that I wish to speak to you about this evening is one that I chose largely because I wished to learn something myself, and in this particular case I trust that the gentlemen who represent the discussion in the program will contribute far more to the value of the meeting than my few remarks on certain rudimentary knowledge.

It seemed to me best before going into the subject of the pathology of the genital tract to briefly recall to your mind some salient facts in the development of the genital tract in women and perhaps review by some of the specimens the normal anatomy of these parts. Having that as a basis the rest of the meeting will be devoted to the more strictly pathological features.

Early in the development of the child, as you recall, there is a time when the sex is entirely indefinite and undetermined—really an hermaphroditic condition exists, and by no means that we have at our disposal at the present day, with any degree of certainty, can we say what the ultimate sex of the child will be. Somewhere in the region of the primitive kidney there finally develops an organ which corresponds to the genital gland; whether it develops later into the ovary or into the testicle will depend upon the ultimate determination of sex. From the genital gland certain ducts and structures pass downward and by their blending eventually forms the nucleus from which

the genital organs are developed either of the male or of the female. This evening I will simply speak of the condition as it exists in the female.

There are two ducts, the so-called Wolffian ducts and the Müllerian ducts. So far as the ducts of Wolff are concerned, they, in the female, may practically be ignored; in the male they ultimately develop into the *vas deferens*, and as such structures play an important part in the genital tract of the male, but in women the Wolffian ducts practically become obsolete. The ducts of Müller, however, are of much more practical value. I have made a hasty sketch here upon the board of these ducts as they appear looking at a dissection of the body from an antero-posterior position. If these ovoid bodies here represent the genital organ, then passing out and coming downward from the sides of this genital body are these two ducts represented in red, known as the ducts of Müller. They cross and come together at the median line, and are at a certain stage of development lying side by side, as we have shown them here in the picture. Just outside of these ducts of Müller and following the same general course are the ducts of Wolff, which are delineated here, but which we will pay no further attention to.

Now it is by a normal blending of these ducts that the genital canal in women is formed, and ordinarily when the ducts of Müller come together, as is the case here, the median septum disappears and there is left the tube below becoming a single cavity, as is here shown, while above these two ducts blend, and although they do not entirely coalesce, there is always a certain amount of depression and separation of the two ducts above, giving rise eventually to the structure of the uterus, and the uterus normally preserves, as you know, the triangular condition here shown with the outer ends of the Müllerian ducts forming the Fallopian tubes, with the inner portion above forming the body and cavity of the uterus, and below with the septum disappearing, forming the vagina.

At a certain stage of development the rectum, the duct of Müller and the allantois, the other structure of the embryo, terminate in a common opening known as the cloaca, and give instead of the double opening, as it exists in the adult, the single opening of the cloaca. The allantois then swells out, becomes more and more distended in its lower portion and becomes solidified in the upper portion until there is left in the adult the cord extending to the naval with the broad

termination quite close and with the lower to form the urinary bladder as here represented.

Just at the dividing line between the duct of Müller in the male and the rectum posteriorly there is a protrusion downward of tissue, until ultimately there is formed between the anus and the sinus here the solid structure which we know as the perineum. A step further in the development and this duct of Müller, which is the embryonic structure differentiated into the vagina, the bladder becomes more and more constricted until it has a definite neck or urethra as it is called, and the vagina and the urethra open into the common opening anteriorly, the space that is enclosed by the labia majora. The rectum then becomes separate, the perineum becomes more and more advanced, and the ultimate condition is as represented in the diagram. A still more extended diagram of the whole condition is here shown. Here is the allantois above the bladder, here the two ureters coming in from either side, and the Müllerian and Wolffian ducts here above, the cloaca below, and the rectum here.

At about this stage of development there appears just ventral of the opening of the urinary sinus a small gland, which may develop into the penis in the male or the clitoris in the female. If it develops into the clitoris there is a still further projection of skin and of soft tissue on either side forming the structure here outlined, and being the foundation for the ultimate labium majus on each side. So much then for the embryologic changes that take place in the development of the genital tract in the female.

At a certain stage in the development it is difficult from the external appearances to be able to say whether or not the ultimate sex is going to be male or female, and about as soon as it can be well determined, the condition here shown, which is a familiar enough picture to all of us, is developed.

When we come to consider the anatomy of these parts, then that perhaps had best be shown by the specimens of the genital tract of two normal women, which I have here—both of these young women died of coal gas poisoning on the same day when I was in the hospital, and the dissection was made some years ago. The entire genital tract is here shown, and briefly it is divided into the four chief groups of tissues that have been indicated by the division of the discussion, the vulva in front, the vagina, the uterus and the Fallopian tubes and adnexa. The only remains of the Wolffian duct that we are able to find in the normal structure of the adult woman

is the so-called structure of the parovarium, which sometimes can be seen by looking through the broad ligament, and the latter is a series of slender fibres interlacing in the midst of the broad ligament.

The most important of these structures is the uterus, and to that organ we will very properly devote the greater amount of study of the pathology, but there are certain changes which take place as the result of development, which it may be well to speak of in this particular connection. One specimen shows the external genitals and the other the internal genitals with the kidneys attached.

If we can imagine that these ducts of Müller instead of becoming hollow, instead of the median septum being absorbed, then the condition which is well shown in these specimens taken from a recent report of the Mt. Sinai Hospital, will be shown. Here are photographs of two women who came into the hospital for treatment to find out what was the matter with them. One was married, the other expected to be, and in neither could menstruation be positively identified. There is a possible history of menstruation, but it probably is an error. Examination of these two cases showed, that both in configuration and in the external genitalia they were normal women, yet a dissection showed the vagina never had existed, and these two ducts instead of hollowing out had remained solid cords, and there was left simply the condition of a woman developing normally in all other ways, but without internal genitalia.

It is somewhat interesting in this connection to show a plate taken from a report of Carl Beck upon the treatment which he advocated in a similar case, in which an artificial vagina was constructed by taking a flap from the inside of the thigh on either side, making a dissection in the position that the vagina should normally occupy, turning the two flaps of skin inside and forming the artificial vagina in that way. If, however, the other condition exists, of which I had until a day or two ago an example, these two ducts of Müller may remain open, they may remain side by side, the septum not being absorbed, and the woman will have a divided vagina and uterus and separate Fallopian tubes. That is not uncommon and the cause is very easily appreciated.

Walter Brenner, of Mt. Sinai, presented before one of the medical societies an interesting series of cases of women that came to his attention in the Mt. Sinai Hospital, in which part of this metamorphosis had taken place and part had



not, and the consequence was that the uterus came down in the normal way and joined to the vagina in a normal way, and although the upper portion of the median septum had disappeared and the lower portion had disappeared, the median portion had remained intact, and there existed a typical septum across the vagina completely blocking up the inlet of the canal, and varying from a slight diaphragm in one case to a band not unlike the hymen but situated two or three inches above the vulval opening. That is an anomaly which could very easily be explained by the non-absorption of these glands.

When we come to consider the deformities that may take place in the externals genitals or anomalies, here is an instance of one rather rare form of anomaly, in which the clitoris instead of being the rudimentary organ, which it ordinarily is and covered with the divided branches of the labia minora, becomes an organ of some considerable size, and gives an external appearance closely simulating that of a male. This gives rise to pseudo-hermaphroditism, and that plate is an excellent example of one type.

Here on the other hand is another example of another type. In this case the genital glands had descended into the labia minora and simulated in general the appearance of the testicles in the male, but instead of the two halves of the scrotum uniting, a vagina existed and the internal genitalia existed as in a normal woman.

These three cases are cases of spurious hermaphroditism, which may readily be accounted for by the variations in the development of these normal embryologic structures. It can be readily seen that it is not an impossibility for the genital gland on one side to develop as a testicle and in the other side to develop as an ovary, or by some freak of nature to be divided and have both ovaries and testicles present. That condition has been denied by many, but it is confirmed with equal force by others.

I have here a series of pictures of a case which, in Philadelphia, some years ago achieved more or less wide reputation among the medical fraternity, and the original photographic plates of which I have in my possession. In this case the individual, if the upper part of the body were to be studied, would undoubtedly be considered as that of a woman. On the other hand, if the lower half of the body is looked at, it is undoubtedly in external appearance that of a man. This particular individual, however, not only was able to beget a child in the capacity of the male sex, but was able to become pregnant by the father

of the young woman with whom as a man she had had connection. It was a case which attracted considerable attention in the small circle in which it was known, and the specimens are rather of more than ordinary interest.

Further up in the genital canal similar changes may exist. In one of the maternity hospitals not so long ago it was found that a pregnancy existed, and it was found that there was a double uterus, one side being pregnant, the other not being pregnant. In one side a probe had been passed by one man and he scouted the idea of pregnancy, and on the other side another man made an examination and found the pregnancy had torn the cervix of the pregnant uterus so far up to the side, that it was with difficulty felt, and in that side so torn a normal pregnancy existed and went on to term.

The variations in the structure of the uterus itself as a result of variations in Muller's ducts can readily be understood. If this dividing line comes down further than usual, then the bicornate uterus exists, or it may be simply indented, or it may be the normal structure of the uterus. So much then for the principal changes and the developmental anomalies of the structures going into the formation of the genital tract.

#### THE PATHIOLOGY OF THE VAGINA.

DR. J. O. POLAK: Dr. DeForest has given us such a very clear insight into the development of the female genitalia, that the few words that I have to say will be practically supplementary to his paper.

In a consideration of the pathological lesions of the vagina, we must consider them under four distinct heads. In the first place take what the Doctor has already called your attention to in the development; we will have developmental arrests, such as the rudimentary vagina, the unilateral vagina, the double vagina and the longitudinal septa. There are, too, absence of the vagina, the rudimentary cord, where we simply have the formation of a column of cells left by the Müller ducts; and then when we have instead of the merging of the ducts the two ducts developing separately, we find the double or bicornate uterus, and the double vagina, and then finally the more common form—the longitudinal septa.

Besides these abnormalities, we have an abnormality which is the result of inflammatory changes during fetal life. These abnormalities are shown in the atresias, particularly the transverse membranes that you find frequently dividing the vagina, which give the transverse mem-

branes or diaphragms which you find frequently complicating these cases when pregnancy occurs.

Again we have tumors of the vagina such as cysts, occasionally primary epitheliomata, it is comparatively rare, but it does occur; sarcomatous conditions of the vagina which are extremely rare, and again finally the pathology is practically closed by the results of traumatism, and these traumatisms are the results of parturition very largely. Therefore, in speaking of the pathology, I shall call attention to that classification of developmental arrest, inflammations, new growths and injuries resulting from trauma and those injuries which are the result of child bearing.

These are the pathological conditions, the symptomatology with the condition present. In the developmental arrests our first notice is usually called to the condition existing at the time of the girl's puberty, at which time when the menses should be established, they are not, and then the question comes up whether it is a defect in development in the ovary, in the uterus or in the vagina. That can be solved sometimes by recto-abdominal examination: frequently even after most careful examination it is difficult to make a decision until after the woman has passed several epochs.

If there are atresias of the vagina, and the most common form is the inflammatory form of atresia, which results in a membranous diaphragm from fetal inflammations, then the woman has all the symptoms of her menstrual epoch with the exception of the appearance of the blood. Gradually there is a feeling of discomfort in the pelvis, and then by recto-abdominal examinations there is found a bulging membrane in the vagina and there is discomfort due to a hematocolpos. These cases are not uncommon. Most of them are associated more with defects in the hymen than with a membranous condition.

It is not uncommon to find double vagina. Here you find septa, usually longitudinal, of greater or less extent, which arrest the progress of the child. I have seen but two of these cases, but both were of interest. In one case the septum was a very complete one. In my first examination I could not find the cervix, but in a second examination I did. I got in the wrong tube, so to speak. These cases have got to be cut, and the cautery probably is the easiest way of dividing these longitudinal septa. In the transverse septa evacuation of the fluid by the cautery is a very satisfactory method. It used to be supposed if you emptied these cases of hematocolpos sud-

denly that we would have dire results. It is not so in these days of asepsis.

The most important pathological conditions that occur in the vagina are those that are acquired, viz.: the inflammatory condition known as vaginitis and its sequelæ, usually specific, and the injuries to the vagina and the pelvic floor which are the results of parturition. In these conditions the pathology is so well known that I will not call your attention to them except to the frequency and the importance of keeping in your mind that all inflammations of the vagina have a very strong tendency towards being specific, though by no means all.

#### THE PATHOLOGY OF THE UTERUS, WITH SPECIMENS.

DR. C. JEWETT: Few subjects have elicited more discussion in gynecology of late than the relation of uterine myoma to pregnancy.

This is the commonest of uterine neoplasms. It is estimated to be found in at least 20 per cent. of all women who have reached the age of 35 years. In its relation to child bearing it is to be considered with reference to three periods—pregnancy, labor and the puerperium.

With reference to its bearing on pregnancy, a considerable difference of opinion obtains as to how far it operates as a cause for sterility. A writer in Veit's Handbook estimates 30 per cent. of women having fibroids are sterile. Looking over my office case book I find that between 40 per cent. and 50 per cent. of women recorded as having fibroids have never had children. Yet this affords no guide to the frequency in general of sterility in the fibroid uterus.

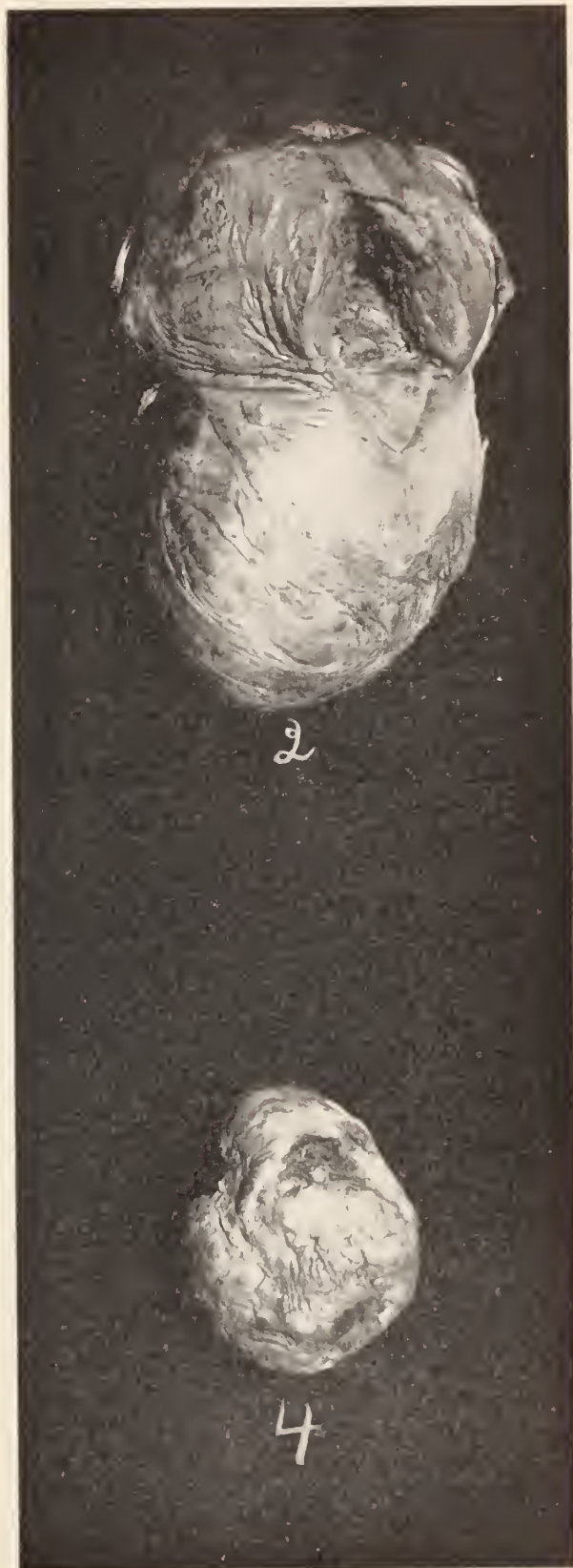
Abortion is more frequent in pregnancy complicated with fibroids than in other cases, and it is likely to be attended by more serious consequences. The difficulty of complete evacuation of the uterus is greater and the danger of sepsis is increased.

Again, pregnancy complicates fibroma uteri, by increasing its rate of growth, and by increasing the tendency to torsion of the pedicle in pedunculated subserous growths.

Fibroma of the uterus is not usually a serious complication of labor, in occasional cases it may be, as shown in one or two specimens I have to present. Edgar went over the records of hospitals with which he is connected, and in 16,000 or 17,000 cases he found there were about 6 per cent. in which the labor was complicated seriously by fibroma. Pinard's observations are to the same effect.



Obstruction may occur within intramural growth in the lower segment of the uterus. A is often true of intramural tumors presenting in advance of the head.



pedunculated fibroid low in the pelvis can frequently be pushed out of the pelvis. The same

Fibroids to some extent interfere with normal uterine contractions. Again the frequency of

mal presentations is greater. Fifty-three per cent. of the cases observed by Losing presented by the head, 27 per cent. were transverse or breech presentation. The woman is more liable to hemorrhage and sepsis.

The influence of fibroma upon the puerperium are chiefly the effects of hemorrhage and sepsis.

When compelled to operate in fibroma complicating pregnancy, especially before the viable period, myomectomy may be considered in the interest of the child. Duncan Emmett, in a collection of all reported cases between 1890 and 1900, in which myomectomy had been done, found 9 per cent. of maternal and 21 per cent. of fetal deaths, a very good showing for the chances of saving the fetus.

Yet myomectomy is not well suited to growths low down near the cervix. The tendency to subsequent abortion is greater in growths near the cervix than well up in the body of the uterus, owing to the greater disturbance in the former of the nerve plexuses which control the uterine contractions. The specimens I have to present are of interest in connection with myoma pregnancy.

CASE I.—Patient was a multipara, pregnant about  $8\frac{1}{8}$  months. The woman was in bad condition when admitted to the hospital. A large fibroma springing from the left side of the cervix and body of the uterus occupied the lower two-thirds of the uterus. The tumor presented at the os externum protruding through it to the extent of about an inch.

The child lay in transverse position in the upper segment of the uterus. Cæsarean section was performed and the entire uterus removed. The pulse was 140 before the operation and 160 at its close. The woman died in thirty-six hours from exhaustion. The child, which weighed five pounds at birth, is still living. The weight of tumor and uterus was eight pounds.

CASE II.—The woman pregnant for the fourth time, came under my care at the eighth month of gestation. A fibroma situated in the right lower portion of the uterus nearly filled the brim of the pelvis. The right lower extremity was extremely œdematous, the left somewhat so and the woman was rapidly losing strength. She was delivered at my private hospital by Cæsarean section, which was followed by complete hysterectomy.

Recovery was uneventful. The child which weighed about  $5\frac{1}{2}$  pounds at birth, is living and thriving. Uterus and tumor weighed seven pounds.

CASE III.—This woman during the fifth month of her first pregnancy was seized with severe ab-

dominal pain which was followed by high temperature. When she came under my care the fever had persisted for a week or more, and was believed to be of septic origin. The uterus was studded with fibromata, as shown in the accompanying photograph. Two of them were in the lesser pelvis. Owing to the septic condition immediate operation was deemed advisable. Hysterectomy was performed about four weeks ago. The patient left the hospital at the end of three weeks in good condition.

CASE IV.—In a young woman three months pregnant a pedunculated fibroid about the size of a fetal head was found springing from the fundus of the uterus. Myomectomy was done owing to the danger of twisted pedicle. The appendix was removed at the same time. The woman left the hospital at the end of three weeks with the pregnancy undisturbed. She however miscarried a month or two later, probably by her own volition. She has since given birth to a full term child.

#### THE PATHOLOGY OF THE FALLOPIAN TUBES.

DR. W. E. BUTLER: The development of the Fallopian tubes Dr. DeForest has spoken of, and in that development we can readily see we can have a number of malformations, which will cause a large number of pathological lesions in the Fallopian tubes. One of these malformations would be the lack of one tube, or a lengthening of the tubes or sacculations, or even accessory tubes, and it is well known in some of these accessory tubes we are very likely to get ectopic pregnancies.

The neoplasms that are supposed to appear in the Fallopian tubes are rather rare, although we may get epitheliomata or cystomata, or even lipomata, one case being reported. These conditions are rare, and the bulk of our gynecological work is made up of the infections of the Fallopian tubes, and we meet it in the pathological lesions of ectopics, but the bulk of the work will remain in the infections, so I think a discussion on the lines of how the infection will reach the tube and the different classes of infection may be in order.

It is known from experiments that in the normal tube we have absolutely no germs; therefore, we have practically no condition of infection in a normal tube. We must, therefore, to have an infection have the germ introduced from the outside. That can only happen in two ways—either through the uterine cavity or through the lymphatics into the tube. It is known further that the only organism that enters into the uterus in the normal condition is the gonococcus; although



it is possible for the tubercle bacillus to enter through the cervix, it is a rare way. Therefore, we are limited in the infections of the Fallopian tubes, where the uterus is normal, where there has been no pregnancy, and where we have had no experimental interference, to the gonococcus.

Where we have had an abortion, or where we have had a delivery of a child with instrumental interference, or with some decidua remains, or some membranes or placental material remaining in the uterus and becoming putrid, we may have an extension of that out into the tubes, but that inflammation is usually accomplished through the medium of the lymphatics, so that where we have these conditions we have staphylococcus and streptococcus inflammations of the tubes. These two different lesions, the gonococcus and the staphylococcus, differ in their pathological anatomy, and they differ for this reason: that in the gonococcus infection the organism passes up through the uterus into the tube and we have an infection of the mucous membrane of the tube. The infection then extends to the muscularis, then to the peritoneal investment of the tube, and then out into the pelvis and perhaps into the general peritoneal cavity, which is, however, a rare condition, so that we have in this gonorrheal infection an enormous enlargement of the walls of the tube. That, I think, is one of the characteristics. We also have an increased amount of pus, perhaps the products of inflammation, fibrous material, serum thrown out from the engorged blood vessels, and when the tubes have become heavy from this increased congestion, increased deposits of fibrin and hyperplastic condition, they fall down in the cul-de-sac and become adherent and wall in the entire inflammatory mass in the tube. In these conditions we have a pus sac pure and simple.

In those conditions where we have instrumental interference, or where we have had an abortion or sepsis following, the inflammation passes through the lymphatics at the site of the uterus into the peritoneal glands, forms some inflammatory deposits around the tubes, and we have a condition known as plastic peritonitis. That condition spreads to the tubes. In other words, we get an inflammatory condition outside the tubes, and the infection extending into the tubes finally, we may have a large abscess—usually it surrounds the tube. These conditions, I think, should be differentiated, and will largely determine us in our operative interference. If we have a gonorrheal infection, we know the tube is infected. We have a gonorrheal pus tube, and

that must be emptied before we can empty the abscess.

It was a matter of great surprise to me in looking over the literature a year ago on the subject of gonorrheal infections of the tube to find that so many pus tubes were sterile, and where the pus had remained past the acute stage, there were absolutely no organisms present in the pus in the tube. The streptococcus infection seems to hold its virulence longer than the gonorrheal. That is one of the important points in the surgery of the Fallopian tubes.

In this class of cases we may have an acute process, or may have a chronic. The acute process of gonorrheal infection extending up into the uterus and into the tube, first involves the mucous membrane, then the muscularis and peritoneal coats, but the first effect is to have a pouring out into the uterus, and perhaps out into the peritoneal cavity if the inflammation is acute enough, of this creamy pus. In these cases we may have a pelvic abscess surrounding the tube, but the usual result is, where we have a chronic inflammatory trouble, a chronic gonorrheal infection, and in these cases the process is much slower, the fimbriated extremity is first sealed, then we have a little leaking back into the uterus that is soon sealed and the pus tube is developed.

There is one other class of infections that I think we find very common, and that is the tubercular process. We do have tubercular salpingitis, and it is one of the conditions we have to differentiate pretty clearly. It usually comes with a milder history. There is usually some other process developing somewhere else in the body, perhaps in the mesenteric glands or in the lungs. It has been found by a number of investigations that the process extends from above downward rather than from below upward. In other words, where we get a tubercular process descending into the tubes, it comes from above; in other words, it comes probably through the intestines, that is a transmigration of the tubercle bacillus from the intestine into the tube and on to the peritoneal coat. This process appears in the formation of small miliary tubercles, these coalescing and forming large caseous masses. That way appear in an acute type, finally break down, and we may even have a small amount of pus, and usually in a tubercular tube the amount of pus is small. If untreated, we may have the thin, watery pus we sometimes find in these tubercular cases. That will give more severe symptoms and lead the surgeon to operate much sooner, but where a case has gone on for a long time un-

treated, we may find a considerable collection of fluid in the tubes. The tube is sealed up rapidly in these cases.

There has been a broad discussion as to the cause of a hydrosalpinx, and a number of bacteriological investigations have been made into this subject, and it has been, I think, fairly conclusively proved, that the pus of pus tubes does not undergo absorption of the solid elements, leaving the serum as a residuum, but that it is due to another process entirely. It may be a mild infection sufficient merely to close up the fimbriated extremities at first, and then with a catarrhal inflammation we have this throwing out of serum into the tube and the development of a hydrosalpinx. Usually where we find these cases we find some other lesions of the uterus or tubes. If we have a large fibroid and some trouble of the fimbriated extremity, we may have damming back of the blood and transudation of serum into the tube.

The next point in the pathology is the ectopic. That subject would take up an evening by itself. I believe in these cases that it follows after some inflammatory lesion, it may be mild or severe, usually mild, or from some malformation of the tube. Perhaps the malformations of the tube should be placed first. These are sacculated, convoluted or accessory tubes.

These sacculations bring up another point—in the dysmenorrhea cases. I believe a large number of these dysmenorrhea cases are due to elongated, convoluted tubes; that we have a collection of a small amount of fluid in these tubes and that is held for a peristaltic motion to force the fluid forward, but it is forced back into the peritoneal cul-de-sac, and where we have this dysmenorrhea it is really due to a mild grade of aseptic peritonitis. That, I believe, is the reason that we find a number of these cases during operations where we know there could not be any infection.

#### THE PATHOLOGY OF THE VULVA, WITH SPECIMENS.

DR. H. G. WEBSTER: I will only mention one or two conditions of the vulva peculiar to that part of the female genital tract. I have brought here a few specimens that illustrate rather unusual conditions. One an epithelioma of the clitoris, and another some apparently mucoid glands that were removed from the labium majus. They simply illustrate the varying conditions which may be found in that portion of the anatomy, and are suggestive of a great variety of diseases which we may find thereabout, for if we are to bear in mind the complex structure of these parts,

the close assimilation of mucous and epithelial surfaces and the blood supply, it is easy to call up practically every form of pathological condition that we can think of.

The series of pictures are of more immediate interest, because they illustrate the more frequent conditions in which the vulva is the seat, and these are the infections, both gonorrheal and syphilitic. I am merely going to ask your attention to the pictures, and will not attempt to go into any lengthy detail regarding them.

There are one or two conditions which are not infrequent, the abscesses of Bartolin's glands, which are possibly the most common form of lesion of the labium majus, and then condylomata lata, chancre, the tertiary lesion of syphilis and various lesions that are all either syphilitic or gonorrheal.

DR. C. JEWETT: This specimen is the result of a myomectomy. This woman was pregnant for the first time at about three months. I found a pedunculated, subserous fibroma springing from the fundus about the size of a foetal head. The myomectomy in this case was a very easy one because of the small pedicle. I found the appendix adherent to the cæcum, divided at its proximal end and skinned out the muscular and mucous coats, leaving the peritoneum. In spite of all this manipulation she did not miscarry. We gave her two or three doses of morphine to keep the uterus asleep. She went out of the hospital with the pregnancy going on. Two or three months later she miscarried, by some efforts of her own, I presume, as she was very much determined to get rid of the pregnancy.

DR. W. E. BUTLER: Referring to the cases of imperforate hymen with large collection of menstrual fluid behind the hymen, I had a patient 12½ years of age, who had noticed the symptoms of menstruation for five or six months. A cyst-like mass appeared in the vulva and gave all the typical symptoms of imperforate hymen with collection of fluid behind it. I made a free incision and let out a pint of menstrual fluid, washing it out afterward.

#### SPECIMEN: FIBROMYOMA OF UTERUS.

DR. F. B. OTIS: This specimen was removed in the service of Dr. J. B. Bogert at Seney Hospital, and shows very prettily on section the common structure of a fibromyoma of the body of the uterus. In the same dish are a couple of small subperitoneal fibroids that were removed from another patient in the course of an operation for cystic ovary, and the small tumors are placed here with the others for comparison and contrast.



DR. H. A. DEFOREST: Here are some pictures showing pathological lesions. One or two of these are of some interest. I personally have never seen any examples of it. I refer to diphtheria of the genital tract. That is of extreme rarity, and I have here two good plates from the German, one showing the diphtheritic membrane of the vagina and cervix, and the other the diphtheritic membrane involving the uterine cavity itself.

If we apply the pathological lesions in a general way, we have those due to injury, infection, and some possible form of infection, not well understood, the new growths; and there are here a series of cases illustrative of some of each of these. Here are a series of four illustrating rupture of the uterus as a result of injury, either due to excessive contraction or to interference more violent than is justified. These plates then represent a series of injury due to external violence.

If we consider those due to infection, there are a number of groups of cases that could be mentioned. This represents the condition existing in ordinary puerperal sepsis, in this case probably due to the staphylococcus, and it is to be borne in mind that in the course of other diseases, and particularly in carcinoma of the cervix, there may be probably, as the result of lowered vitality of the tissues involved, involvement of other tissue by septic bacteria and a collection of pyometra.

I was glad Dr. Butler made reference to the question of tuberculosis as it involves the genital tract. I cannot quite agree with the statement, as I understood him to make it, that the tubercular infection always occurs from above downward. That, I believe is ordinarily the case, but that it is the invariable rule I cannot agree. Where cases of tuberculosis of the bladder exists in women, I can see no reason to believe that that tubercular infection may not gain access to the genitalia from below, as that we should suppose another lesion involving the Fallopian tubes and coming from the upper part. To substantiate this view let me call your attention to this specimen: a tubercular ulcer involving and destroying the entire external genitals, the vulva was quite destroyed and the lesion extended up into the vagina until relieved by an operation, for the excision of which growth the patient came to Dr. Barber's attention.

Here are two specimens of tuberculosis of the uterus involving both the uterus itself and both Fallopian tubes. Here is another specimen showing the minutiae from the tubercular nodules as usually found on the surface of the peritoneum.

The condition shown by Dr. Jewett so beautifully in his specimen is here shown in three illustrations showing the prevention of the descent of the child by a fibroid tumor impacted in the pelvis, and here a retroversion caused by some pressure from above. This group of cases also goes together. The lesion of sarcoma of the uterus, is seen here, which is of extreme rarity, and personally I have never seen an example. The book by Cullen has furnished this number of sarcomata with the small one and showing different stages of development, until in one case it is almost as large as a fibroid.

Here are two rather unusual specimens of an angio-sarcoma of the ovary and one of an epithelioma of both ovaries.

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## THE BROOKLYN SURGICAL SOCIETY.

REGULAR MEETING, MAY 5, 1904.

The President, W. F. CAMPBELL, M.D., in the Chair.

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### SARCOMA OF NECK.

DR. M. FIGUEIRA presented a case with the idea of showing the reverse of the picture that is so often exhibited here of successful cases of sarcoma treated by the X-rays or Coley's fluid. This man has been suffering with sarcoma of the neck for about two years; and in the course of his wanderings he fell under the care of Dr. Coley. Dr. Coley gave the first injections, and after that the staff treated him for twenty days and then he was treated with the X-rays.

This shows that in some of these cases all means of treatment fail, and in this young man one would imagine that the treatment would succeed if there was anything in it, because he is in good condition and he was seen before the disease had made very great progress. We do not see many of these cases. We see only those that succeed, but the unsuccessful ones we do not see, and that is the reason why the speaker presented him.

### NEPHRECTOMY FOR URINARY FISTULA.

DR. M. FIGUEIRA presented a man who was admitted to a hospital in the city with what was supposed to be a cyst of the spleen. It was opened and a fistula left discharging something which, when he came under the speaker's care, examination showed was urine. He operated and removed piecemeal a diseased kidney, and he presented him as an instructive example of mistaken diagnosis and unsuccessful treatment.

## COMMUNUTED FRACTURE OF THE PATELLA.

DR. C. H. TERRY presented the case of a police officer who last summer, while arresting a prisoner, the prisoner grappled with him, threw his arm around the officer's neck and threw him, and as he fell he struck on a cobblestone. Dr. Terry saw him a few hours afterward, and the swelling was greater than anything he had seen in a fractured patella before. Floating around in the fluid of the oedematous tissue were several fragments of the patella. He kept the man in bed with a solution of lead and opium and an ice bag on his knee for two weeks before he considered the effusion had subsided sufficiently to put him up. He then put up the limb in a plaster of Paris splint with a fenestrum and attempted to draw the fragments together. He kept him in this for eight weeks because the swelling was so great. At the expiration of three months there was a very great amount of exudate about the joint, so that he could not even then make out the outline of the fractured bone. He is now able to bend his leg at a right angle and goes up stairs with very little difficulty.

## OPERATION FOR HAMMER TOES.

DR. C. H. TERRY said that it was well known that a man with badly deformed toes cannot pass a civil service examination. A man came into St. Mary's Hospital last summer with the second toe of each foot badly deformed. He said for a number of years he had been obliged to cut his shoes on account of the deformity and was lame for a great portion of the time.

Three operations are recommended: amputation, division of the soft parts and excision of the articular end of the metacarpal bone.

Amputation of the toes would preclude the possibility of his passing a civil service examination, to say nothing of hallux valgus. The only thing that seemed to be left to do was to take off a portion of the first phalangeal bone. This was done, enough taken off so that the toes could be straightened out and a splint applied on the sole of the foot and brace to keep the toes straight. The wound healed without any trouble. When the man left the hospital his feet were apparently as good as ever. There was slight shortening of the toe, but not enough to call attention to. The speaker had heard a number of physicians say amputation was as good as anything that could be done, but this procedure was more desirable for this man than amputation.

## GUNSHOT WOUND OF CHEST AND FOREARM.

DR. C. H. TERRY reported the case of a police-

man who, while patrolling his beat in the early morning hours, saw a man with his clothes stuffed out with something. When the officer approached the man and asked him what he had in his pockets the man fired. As the officer reached to get his own pistol he was shot in the wrist and the ball came out here in the back of his hand. The singular thing was that there was not a bone broken. Whether it was just before this shot took effect or just after the officer could not tell, but he was shot in the breast. Dr. Terry saw him in the hospital a few hours afterwards. Both wounds had simply been washed off with a solution of bichloride and dressed with iodoform gauze. That was the only treatment that the man had while he was there. There was not a probe put into either wound, and at no time did his temperature go above 100 2-5. Certainly the ball was not deflected by the rib and run around the body.

He had bloody sputum for nearly a week. Dr. Terry did not find the ball.

## RESTORATION OF THE LOWER JAW BY PLASTIC OPERATION AND PROSTHETIC APPARATUS.

DR. A. T. BRISTOW presented a patient with the following history: In October, 1903, a West Indian woman came into his service at the Long Island College Hospital. In one of the periodical riots which occur among the people of the tropics she had received a gunshot wound of the chin which carried away the symphysis of the lower jaw. The teeth on each side of the injury were fine and strong, but in the centre of the bone there had been so much loss of substance that as a result of the action of the internal pterygoids the two fragments had been pulled together so that the teeth of the under jaw lay entirely within the semicircle of the teeth of the upper jaw. No bony union had taken place between the fragments, and they were rather loosely held by fibrous and cicatricial tissue, quite extensive in amount. The symmetry of the face was entirely destroyed and the narrow lowered jaw, with the teeth of the upper jaw projecting, by contrast gave a curious and unpleasant expression to the face. It was, of course, quite impossible for the woman to chew her food, as the lower set of teeth, when the jaws were closed, lay entirely within the upper set. A careful examination showed that the only method by which the function and symmetry of the lower jaw could be restored was by a dissection which should free the fragments in the median line from the soft tissues and cicatrices which had drawn them



together and then forcing them apart until the normal contour was restored, hold them in place by a dental plate which should sustain artificial teeth to replace those which had been lost, and at the same time keep the fragments in their normal position, the basal part of the plate taking the place of the lost bone.

Dr. J. W. Russell took charge of the dental part of the work. After the patient was deeply under the anesthetic two stout perineal tubes were passed into the pharynx after the method of Crile, the mouth was plugged with gauze and the liberation of the fragments begun. It was necessary to employ free dissection and to remove much tissue before, with the exertion of considerable force, the two fragments could be separated, so as to approximate the dental arches. With the fragments widely separated Dr. Russell then took a cast of the mouth in dental wax and from this a splint was made which held the bones apart during wound healing. This at the proper time was replaced with an artificial denture. The casts show very well the deformity resulting from the bullet wound. The convalescence of the patient was interrupted by a short attack of broncho-pneumonia, from which, however, she recovered, and in the latter part of the winter she returned to her West Indian home very much improved in appearance, with the function of the lower jaw restored.

#### *Discussion.*

Dr. J. W. RUSSELL presented the model made by his assistant, Dr. Sould. The original denture was made by J. H. Demonet. The plate was put on December 22, 1903, and on December 25th she was able to eat her dinner. She sailed for home during the holidays, and she wrote that although she was sick all the way down, the plate remained in place and she had no trouble with it.

Dr. Russell said that in a case Dr. Pilcher operated on some six years ago at the Seney Hospital the patient still wears her appliance. It had been several times refitted, because it breaks every now and then. She has a great deal of comfort out of it and is healthy. This was a case of removal of half of the lower jaw for sarcoma in a young Irish girl about 25. Before the operation Dr. Russell took an impression of the mouth and made an interdental splint. As soon as Dr. Pilcher removed the jaw the splint was put in place, so as to hold the remaining fragment in its normal condition. From the other cast of the mouth he made an artificial substitute of rubber, resting it up against the cheek and passing

around to the other side, clasp it to the teeth. The pressure of the cheek kept the fragment of the jaw in place, so that she can masticate on that side, and she still uses it all right.

#### CARCINOMA OF CERVIX UTERI: OPERATION BY THE BYRNE CAUTERY METHOD.

Dr. J. RICHARD KEVIN reported a case with the following history: Mrs. G., 31 years old, married nine years, one child eight years ago. Left ovary removed six years ago; appendix three years ago. Previous to March 18th had continued hemorrhages from the uterus occurring for two weeks with more or less severity. For a year previous the periods were prolonged ten days, and at intervals the periods were irregular, ranging from ten days to three weeks. The vaginal examination revealed a large cervix, uterus movable and vaginal walls not involved.

The usual Byrne cautery operation was done March 20th and the uterus practically shelled out. The time taken was about an hour. The pathologist's examination confirmed the diagnosis of carcinoma. The specimen was presented.

#### EXTRAUTERINE PREGNANCY: OPERATION: RECOVERY.

Dr. J. RICHARD KEVIN reported the case of a patient sent into St. Mary's Hospital with a diagnosis of appendicitis. The patient was 32 years old and had been married 14 years.

One week ago she was taken suddenly with severe pain in the right ovarian region, which grew worse and spread to the left. At the same time the patient had slight bloody discharge from the vagina. She was last unwell two months ago, and since then, up to the time of the onset of the pain had at intervals slight bloody discharge. She was pregnant two and a half years ago. Operation April 21. Removed tube and ovary. There was a great deal of blood clot in the abdomen. Uneventful recovery. The specimen was presented.

#### GASTROTOMY FOR FOREIGN BODIES.

Dr. J. P. WARBASSE reported the case of a man, aged 23, who made a living by exhibiting himself swallowing foreign metallic materials. For the past seven years he had been in the habit of swallowing articles varying in size from that of a pin to a jack-knife. Most of these articles he had passed through the alimentary canal without any disturbance; but some two and a half years ago he suffered from an accumulation of metallic things in his stomach, which he was not able to

pass through his pylorus, and was operated upon at St. John's Hospital. This man recovered from his operation and continued to give these exhibitions. He has had during the last month two distinct gastric attacks, associated with efforts of the stomach to empty itself of something it was not able to extrude, and in a seizure of this sort about a week ago he fell down in an unconscious state and was removed to the German Hospital.

The X-ray picture which was presented showed an accumulation of X-ray-stopping substances in the region of the cardiac end of the stomach. The patient believed, from his record of things which he had swallowed and not been able to pass, that there remained unaccounted for one pen-knife, ten nails and two watch chains. That was his inventory of the unaccounted for materials. With this inventory at hand in the operating room Dr. Warbasse proceeded to open his stomach over the cardiac end and about two inches to the left of the former incision which had been made in the median line. An opening large enough to admit the hand was made, and the foreign materials disentangled and removed.

He found the stomach firmly adherent to the abdominal wall at the site of his former operation. The cardiac end of the stomach had sagged down in a pouch, and the contents of this pouch is what produced the shadow in the picture. The stomach was opened and the following materials were removed: Seven pocket knives, twenty nails, seven door keys, two watch chains, a salt spoon, and a button hook. The chains bound these things together in a compact mass. The gross weight of the mass sagged down the cardiac end of the stomach to such a degree that the musculature was not strong enough to hoist things over into the pylorus, and even though the stomach had been able to present it at the pyloric orifice, the pylorus would not have accommodated it. It was interesting to observe that the pearl and bone handles had been digested off of the knives.

This man has made an uninterrupted recovery. A full report of this case will be found in a paper on gastric tetany in the *Annals of Surgery* for December, 1904.

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#### BROOKLYN MEDICAL SOCIETY.

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The Ninety-fourth Regular Meeting of the Brooklyn Medical Society was held on the evening of Friday, June 17, 1904, the President, Dr. W. B. BRADER, being in the Chair.

Application for membership:

Dr. V. A. Robertson, 834 Union St.; St. P. & S., 1883.

Admissions to membership:

Drs. G. P. Thomas, F. D. Jennings, O. C. Swift, F. E. Wilson.

#### CLINICAL SECTION.

Dr. J. P. Warbasse, Chairman.

CHARLES NATHAN, D.D.S., presented a case of Mechanical Closure of Congenital Cleft Palate by means of an Obturator or Artificial Palate, exhibiting the patient.

The following history was presented. The young lady, now 18 years of age, was born with a complete cleft of the hard and soft palates alveolar process and the left side of lip with a projection downward of the pre-maxillary bones. She was operated upon when 6 weeks old for closure of the hare lip, which operation proved unsuccessful; a secondary and successful chilorhaphy was performed at six months after birth. At the age of 6 years two successive operations for uranorrhaphy and staphylorrhaphy were performed, but were attended with partial success, as there is only a union of about half an inch of the alveolar process and hard palate.

When 12 years of age the patient had an obturator constructed which at the time made considerable improvement in her deglutition, mastication and vocalization. But as the patient advanced in years the appliance outlived its usefulness and she was recommended to the doctor to see if an appliance could be constructed which would more completely close the cleft in order that her speech might be rendered more articulate and regurgitation of fluids into the nasal cavity be prevented.

The appliance as constructed consists of two sections joined by a hinge. One section of the appliance consists of a vulcanite rubber plate covering the vault of the buccal cavity to the posterior border of the hard palate and fitting around the lingual surfaces of the upper teeth and having clasps of gold attached which fit around one or more of the molar teeth on either side, serving to hold the obturator in position. The other section consists of a hollow bulb of vulcanite rubber fitting into the cleft of the soft palate and shaped so as to allow for the passage of air into the posterior nares. There is a spring attached to the plate portion of the appliance which rests upon the bulb, thus helping to keep the bulb in apposition to the soft parts by counteracting its depression during the downward play of the muscles in deglutition and vocalization. The appliance is removable and easily ad-



justed by the patient. It is intended to be removed upon retiring. The lingual surface of the appliance is of highly polished gum color pink vulcanite, so as to give a smooth surface to the tongue, thus helping to keep the appliance clean and the color is to harmonize with the adjacent mucous membrane.

The doctor then demonstrated the sound of the patient's voice with the appliance in position and without the same, and explained that patients of this class contract certain habits in their endeavors to vocalize, which when a more normal condition was restored, interfered materially with proper enunciation.

The patient was advised to practice speaking as slowly and distinctly as possible in order that she may overcome those habits.

There was, however, a great improvement in the speech of the young lady with the appliance in position, and with time and practice the doctor hopes for a restoration of speech very near the normal, and as regards deglutition there was no longer any regurgitation of fluids into the nasal cavity, great comfort thus resulting to the patient.

Discussion by Drs. J. S. King and J. C. Kennedy.

(2) Hysterectomy for Recurrent Carcinoma of the Uterus, by Dr. W. B. Chase.

Discussed by Dr. J. C. Kennedy.

Paper: The Work of the Milk Commission, by Dr. Peter Scott; Dr. Harris Moak.

Discussion by Drs. H. C. Ager, Alfred Bell and J. R. Blatters.

ALFRED BELL, M.D.,  
Secretary, *pro tem*.

## PROGRESS IN GYNECOLOGY AND OBSTETRICS.

BY CHARLES JEWETT, M.D.

### OLD PRIMIPARA WITH MYOMATOUS UTERUS.

Lepage (*Comp. d'Obstet. de Gyn. et de Ped. de Paris*, October, 1903) refers to two cases of labor in his practice complicated with myoma, in which no surgical intervention was required.

CASE I. was that of a woman pregnant for the first time at 57 years of age. Examination shortly before term revealed a small pedunculated fibroid at the fundus, two sessile tumors on the anterior wall, one of which was near the cervix. Another about two and a half inches in diameter lay in Douglas' cul-de-sac. Still another was found low in the pelvis at the right of the uterus.

The child, weighing six and a half pounds, was born dead, the labor ending spontaneously.

CASE II. occurred in a woman 38 years of age and a primipara. There were several myomata in the uterus, one as large as a foetal head, deep down in the pelvis behind the uterus. The woman had been kept under observation during the last four months of gestation in the Clinique de Baudelocque. At labor at term the lower tumor slipped up above the pelvic brim, and the child, which presented by the breech, was extracted without difficulty. The pelvic floor, which was torn into the rectum, was repaired several days later.

Both these cases were carefully watched during the later months of pregnancy, and were kept on special diet. They serve to emphasize the fact that even extensive fibroid disease of the uterus does not necessarily seriously complicate labor.

### CARCINOMA OF THE CLITORIS.

Weber (*Monats. f. Geb. u. Gyn.*, February, 1904), reporting a case of carcinoma of the clitoris, upon which he operated, discusses the disadvantages of thermocautery as compared with the knife. Redlich has advocated the former. Weber believes that the presumed advantage of cautery may be had as well by enveloping the growth in gauze and pushing it aside during the dissection, thus protecting the healthy raw surfaces from implantation of the cancer cells. An objection to cautery is the slow healing of the wound. Again, he thinks immunity from recurrence is practically out of the question in cancer of the clitoris. In all his cases the growth has returned.

### CONVULSIONS IN CHILD BED FROM CEREBRAL TUMOR.

Zweifel (*Zentralbl. f. Gyn.*, No. 17, 1904) reports a case in which more than eighty convulsions occurred during labor. To all appearance the case was one of true puerperal eclampsia. The woman died and the autopsy revealed a cerebral tumor. [Cerebral tumor is not the only condition that may simulate puerperal eclampsia. Doubtless the abrupt onset of convulsions during labor, without antecedent evidence of toxemia, is more frequently a pseudoeclampsia than is usually suspected.]

### PYOCOLPOS.

Laroyenne (*Ann. de Gyn. et d'Obstet.*, April, 1904) reports a case of imperforate hymen in a girl of 17 years, in which the vagina was distended with pus instead of menstrual blood. The

patient complained of considerable pelvic pain and tenderness, and there was some elevation of temperature. On opening the hymen about a pint of pus was evacuated. There was no accumulation in the uterus nor in the tubes. The primary condition no doubt was hematocolpos, yet instances of primary pyocolpos have been recorded.

#### SUBLAMINE FOR HAND DISINFECTION.

Kroenig (*Monatsschr. f. Geb. u. Gyn.* No. 1 1904) confirms the claims of Fueth, Engels, Paul, Sarwey, Furbringer and others for the value of sublamine as a skin disinfectant. The article contains some pertinent observations on antiseptics in general.

Schaeffer has contended that comparative experiments with hand disinfection, to be of value, should be made on the hands of the same subject. Such tests Kroenig declares are fallacious, since each disinfection lessens the receptivity of the hands for bacteria. If a few days are allowed to intervene each time in order to permit the effects of the last disinfection to disappear there is no assurance that the bacteria are of equal resistance in the different tests. The chances of error are far less when different hands are infected with a medium as nearly as possible of the same virulence on the same day.

Again Schaeffer holds that the tests are best made with concentrated solutions of antiseptics on pure bacterial cultures. This Kroenig denies. He has proven by numerous experiments that the action of antiseptics in the presence of organic substances, especially upon the skin, is entirely different from that upon bacterial cultures. Chlorine water, for instance, is powerful in its effects on spores and vegetable forms. Yet on the properly prepared skin it has no such intense germicidal action. Not only spores but vegetative forms can be gotten from hands so treated even though the antiseptic has been allowed to act for many minutes. The author submits, therefore, that no conclusions concerning the action of disinfectants on the skin can be deduced from their effect on pure bacterial cultures.

Furthermore, Kroenig contends that when dealing with solutions containing organic combinations it is not so much a direct bactericidal action that is wanted as an inhibitory effect on bacterial growth.

Skin impregnated with a disinfectant which continues to exert an inhibitory effect when particles of the skin are transferred into the animal body cannot infect.

Superior penetrating power and certain other

properties may make a given salt more effective as a surgical antiseptic than certain other salts known to be more actively inimical to pure cultures. Disinfection is not necessarily synonymous with destruction of all bacteria. Kroenig thinks the comparative results of animal inoculation with skin scrapings after disinfection with different antiseptics afford reliable tests.

Sublamine he believes to be a better disinfectant than sublimate for the reason that it has greater penetration and therefore more effectually impregnates the skin.

Since it is far less irritant it can be used in stronger solution and in slightly stronger solutions it is equally germicidal under any tests.

#### AN EXPERIENCE WITH BOSSI'S DILATOR AND HENKLE'S METHOD OF CLAMPING THE UTERINE ARTERIES IN POST-PARTAL HEMORRHAGE.

Dr. Alfred Labhardt (*Zentralblatt für Gynäkologie*, No. 28) briefly describes Henkle's procedure of clamping the uterine arteries in post-partum hemorrhage. A strong Muzeux forceps grasps the cervix, which is well drawn down toward the left side, when a second Muzeux forceps is clamped upon the right parametrium, which includes the right uterine artery. The latter procedure is repeated upon the left side. The forceps are permitted to remain from twelve to twenty-four hours. There is practically no danger of catching a ureter in the forceps, and little damage is done by the moderate pressure.

The writer reports a case of pregnancy at term complicated with meningitis. The patient, thirty-seven years of age, VII-para; when brought to the hospital she was unconscious. Marked Cheyne-Stokes' respiration, contractions of neck muscles and absence of patella reflexes were noted. On dilating the cervix with Bossi's dilator a hemorrhage occurred. Dilatation was completed in fifteen minutes and a living fetus was extracted with axis traction forceps. A severe post-partal hemorrhage followed the delivery of the placenta. A hot douche brought about uterine contractions, but still the hemorrhage, which had its origin in a deep cervical laceration, continued. A Muzeux clamp placed as above described upon each uterine artery checked the bleeding instantly. The patient died six hours later. An autopsy revealed a purulent leptomeningitis, the exciting factor of which was the pneumococcus-lanceolatus. A deep cervical laceration nine cm. in length was found upon the right side, and two contused cervical wounds at points where the tips of the dilator had rested.



## Brooklyn Medical Journal.

All communications, books for review, articles for publication, and exchanges should be addressed BROOKLYN MEDICAL JOURNAL, Library of the Medical Society of the County of Kings, 1313 Bedford Avenue, Borough of Brooklyn, New York.

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*Entered at Brooklyn, N. Y., post office as second-class matter.*

BROOKLYN-NEW YORK, SEPTEMBER, 1904.

### THE CAUSES OF RAPID MORTALITY OF UNCIVILIZED RACES, ON CONTACT WITH CIVILIZATION.

The paper by Dr. Frederick A. Cook, presented in this issue of THE BROOKLYN MEDICAL JOURNAL, is unusual in several respects. In the first place it is a paper written by the only medical man living who has had the opportunity of studying the aboriginal races of both the far northern and the extreme southern limits at which human beings exist—the Eskimos, Patagonians and the Fuegians.

It is also remarkable in that the paper presents some hygienic facts of extreme importance to students of medicine and anthropology. No fact has excited greater wonder in the minds of students than the sweeping away of the really great aboriginal population which once inhabited this country, so that now the very names of many once populous tribes have passed completely from human knowledge.

It has been common to regard the extinction of such a great number of races to the combined effect of alcohol and small-pox, and, to a less degree, to syphilis and the acute, contagious diseases.

Dr. Cook, basing his judgment on his observations both north and south, attributes the extinction to several hygienic factors, of which the changed modes of life of primitive man, after contact with the Caucasian, are regarded as important. Thus, the tendency to congregate in settlements or villages, coupled with an ignorance of the laws of cleanliness, is a cause of this degeneracy. The rapid change to substantial habitations works them harm. Their new houses, though they may be better built, are poorly cared for and consequently much more prone to harbor disease germs, especially those of tuberculosis,

than the frail but temporary hut or shelter in which they lived but for a few days or weeks before wandering to a new locality.

On contact of the aborigines with the Caucasian traders, the garment of skin is replaced by the less comfortable one of cotton. The long journeys in pursuit of game are curtailed, while the diet of meat becomes changed to one composed largely of starch.

Dr. Cook likewise attributes an important proportion of their rapid mortality to the introduction of the acute contagious diseases. These he finds not only severe in the children of primitive man, but even more so in the adult population. Thus, in 1893, he observed an epidemic of chicken-pox among the Eskimos which was so severe as to lead him for a time to suspect the disease to be small-pox. Alcohol and the venereal diseases are recognized as factors of mortality; while tuberculosis, to which the changed conditions of life and the debility engendered by diseases render them most prone, plays an important part in the subjugation, moral and physical, of the primitive peoples.

### TYPHOID EPIDEMICS.

A typhoid epidemic in the City of New York, even though of a local character, is a matter likely to arouse considerable anxiety and foreboding. The epidemic in the Bedford Park section of the Bronx to which the one referred to is at present confined, seems to have been due to the use of water other than the public supply. The sufferers had apparently been consuming water from a spring into which surface water has ready access. The situation, therefore, is one which may be hardly sufficient to cause justifiable alarm. The matter is already the subject of thorough investigation in the hands of the health authorities, who are using every precaution to prevent a further spread of the disease. The Italian colony, among which the epidemic is at present located, has formed an extremely favorable quarter for the successful propagation of typhoid. The area in which the spring is located was to have shortly formed part of a new storage reservoir; but this fact need likewise have no special significance as favoring the spread of the disease throughout the city, in view of the preventive measures which are being employed in stamping it out.

Incidentally the epidemic furnishes a graphic illustration of one of the shortcomings of a water supply which is composed in part of surface

drainage. A supply so situated that it is open to the reception of surface drainage, is always insecurely guarded from the accidental reception of typhoid fever germs.

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#### APPOINTMENT OF CONSULTANTS TO STATE INSTITUTIONS.

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It is, in a manner, a tradition that the medical consultants appointed to State Hospitals shall be chosen with as nice a sense of fitness as possible. Thus it has been the case that the men assigned to fill the positions at the State Hospital for the Insane in our Borough have invariably been Brooklyn men. The patients treated here are Brooklyn people and the consultants who may be called upon know, or are supposed to know, the local conditions of life surrounding them better than do outside men. There are other reasons which appeal to every citizen of the Borough, physician or layman, which confirm the course in the past as the correct one. It would, therefore, surprise us, if the report that this precedent has been departed from, should be confirmed. We are certain that the physicians of Brooklyn look favorably upon the present arrangement and would feel it an infringement if appointees, however worthy, were chosen from other parts of the State for an institution in which citizens of Brooklyn alone are treated.

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#### MEDICAL NEWS.

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EDITED BY CLARENCE REGINALD HYDE, M.D.

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*It is earnestly hoped that all members of the profession possessing news concerning themselves or their friends, which would interest others, will communicate the same to the News Editor before the 9th of each month. Items for this department should be sent promptly to Clarence Reginald Hyde, M.D., 126 Joralemon Street.*

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Dr. Edward M. De Castro, of 482 Henry Street, is receiving the congratulations of his friends in the event of the birth of a son, August 15th.

Dr. William F. Campbell, who has been seriously ill with typhoid fever at his home, is now convalescing rapidly. His many friends have been much disturbed at the disquieting reports

regarding his illness, and will be pleased to learn of his safe return to health.

Dr. Wilbur L. Rickard, who was operated upon for appendicitis by Dr. Ferguson, of Troy, the last of July, has fully recovered. He was visiting his father at Canajoharie, New York, when attacked and an operation was necessary on the fifth day. We tender hearty congratulations on his recovery.

Dr. John A. McCorkle, in company with Dr. Gordon Hall, travelled abroad during August.

During the summer many improvements have been made in the Long Island College Hospital. The operating amphitheatre has been enlarged, electric lights installed and more space allotted the attending surgeons in the matter of dressing rooms and modern wash basins. Telephonic communication has been established throughout the hospital. The hospital now runs its own ambulance service.

The Mount Sinai Hospital has been left one thousand dollars by the late Marcus Goldman.

The Jungfrau boring, which is rapidly approaching completion, is the highest in Europe. Contrary to medical anticipation, the men engaged in the work enjoy splendid health while working at the present great elevation.

Dr. Earl H. Mayne, of Remsen Street, has returned from a three months' study of rectal diseases in the hospitals of London, Amsterdam and Paris. The doctor is making a specialty of rectal diseases.

Dr. Sidney D. Wilgus, of New York City, has been appointed by the State Commission in Lunacy as chief examiner, with a salary of five thousand dollars. Dr. George D. Campbell, of New York City, and Dr. W. E. Sylvester, of College Point, have been appointed assistant examiners at a salary of three thousand dollars each.

Dr. Herman T. Peck, of Halsey Street, who recently lost his father, mother and sister, has suffered a further bereavement in the loss by drowning of Arthur Z. Peck. Much sympathy is expressed for Dr. and Mrs. Peck in their new affliction.

Edward Ashbee, a medical student, and Miss Ada Outend, a trained nurse, both connected with Dr. Muncie's sanatorium, at Oak Island Beach, Babylon, L. I., were drowned in the surf, August 2d.



Dr. Theodore C. Guenther has removed to 431 Fiftieth Street.

Dr. Jerome B. Thomas (L. I. C. H., '92) writes that he is very busy at the Government Sanitarium, in Baguio, Benguet, Philippine Islands. He says that "by next January, the Benguet road connecting us with the lowlands and Manila, will be cut through and then our little town will begin to really grow. Capitalists are already planning to build an electric road from Manila here, and when that is completed we shall soon become the summer capital of the Philippines, in fact, as well as in name." Dr. Thomas is in charge of the Civil Sanitarium and has just recently entertained Governor Wright and the U. S. Commission and suite, who spent two months at the sanitarium.

King Edward has approved the appointment of Prof. William Osler of the Johns Hopkins Medical School, Baltimore, as Regius Professor of Medicine at Oxford University, in succession to Sir John Burdon Sanderson.

Prof. Osler, who has been Professor of Medicine and physician to the hospital of the Johns Hopkins Medical School since 1889, is a Canadian by birth and is fifty-five years old. After being graduated from McGill University, at Montreal, he studied in Europe. From 1874 to 1884 he was a professor at McGill University, and then for five years was Professor of Clinical Medicine at the University of Pennsylvania.

Dr. Osler will continue to hold his position at Johns Hopkins University until 1905, thus completing the coming term at that institution.

The Kings County Insane Asylum at Kings Park, situated on the northern shore of Long Island, forty-five miles from New York, was established in 1886 by the County of Kings for the chronic insane, and was administered as a branch of the Kings County Insane Asylum at Flatbush. On October 1, 1895, the plant was turned over to the State of New York, and since then vast improvements have been made in the property. Dr. O. M. Dewing came to this place under Kings County in 1889, remained through the county administration, was appointed medical superintendent by the State authorities when the institution became a State hospital, and has up to the present time remained there as medical superintendent.

This hospital is the second largest hospital for the insane in the world. The population now consists of some 2,800 patients and over 500 employees. There is a staff of fourteen physicians, besides the superintendent, a matron, and a resident steward. The annual *per capita* cost of maintenance for patients is about \$185. This includes absolutely everything—officers' salaries, employees' wages, provisions and general stores, all repairs, cost of running the farm and caring

for the grounds, cost of clothing, bedding, renewals of furniture, books and stationery, fuel and light, drugs and medical appliances, and miscellaneous expenses.

The nurses and attendants are classified and receive wages as follows:

	Per month.	
	Men.	Women.
1. Charge nurses. ....	\$34-39	\$29-34
2. Nurses .....	31-36	26-31
3. Charge attendants .....	30-35	25-30
4. Attendants .....	22-26	16-20
5. Special attendants .....	35-40	30-35
6. Dining room attendants....	16-20	16-20

There is a training school for nurses, the course being two years, and the instruction both didactic and practical; the didactic instruction is effected by lectures and quizzes by physicians and by the study of textbooks, and the practical instruction is received at the hands of the matron of the hospital, who is an accomplished trained nurse, and by her various assistants; also by the dietician, in invalid cookery. After graduation from the two years' course of training, attendants are styled nurses and receive additional pay. Attendants during this course are allowed to go out nursing private cases, on leave of absence without pay, and they are allowed to retain the pay received as a result of their private employment. The members of this training school receive careful instruction in massage, hydrotherapy, surgical technics, and the various matters in regard to which a trained nurse should be well informed and expert.

In the treatment of acute cases at this hospital much attention is given to hydrotherapy and to special and, in some cases, forced alimentation. Much work is done in the examination of stomach contents and the use of other clinical laboratory methods, and treatment and diet are based thereupon.

Classification of cases is thoroughly carried out, the acute insane being separated from the chronic insane in two acute services, one for men and the other for women. Tuberculous patients are isolated, and have been isolated, since the year 1893, in two cottages, one for men and the other for women.

Cases are studied in accordance with the methods of Kraepelin and Wernicke. The classification used is generally that of Kraepelin.

The recovery rate averages over 30 per cent. of the admissions. Last year this recovery rate was 32 per cent.

There is a complete surgical operating room, and major operations are performed every two weeks, members of the medical profession being invited to attend.

Mechanical restraint is rarely used. It is occasionally used where it seems more humane than to employ the services of several attendants constantly for the restraint of violent subjects, and to prevent self injury. What is known as the

restraining sheet is practically the only form of restraint used.

The ration table for the entire hospital, including officers, employees, and patients, is as follows *per diem* and *per capita*:

Article.	Allowed.	
Meat and fish.....	10.5	ozs.
Farinaceous food .....	13.	ozs.
Butter .....	1.5	ozs.
Cheese .....	.3	oz.
Coffee .....	.465	oz.
Eggs .....	.55	oz.
Fruit, dried .....	.5	oz.
Milk .....	1.1	pt.
Potatoes .....	10.	ozs.
Sugar .....	2.	ozs.
Tea .....	.1175	oz.
Vegetables, canned .....	2.	ozs.
Vegetables, fresh .....	4.	ozs.

Medical staff meetings are held twice a week, at which cases are presented and analyzed by members of the staff.

Tuberculous cases, isolated as above stated, receive careful treatment along the hygienic lines now generally pursued in the sanitariums for tuberculosis—that is to say, a life out of doors, special attention to feeding, and hydrotherapy.

The considerable number of epileptics have been placed upon varied diets with a view to determine their efficacy in the treatment of epilepsy, but although interesting results have been obtained, it is not considered desirable to make any report at this time.

Dr. Dewing has recently been transferred from this hospital to the Long Island State Hospital at Flatbush, Brooklyn, which was the parent institution. The hospital at Flatbush is now held by the State on a lease from the city, which will expire September 30, 1905. It is desired by the medical profession in Brooklyn and the friends of the insane and the State authorities that a release be obtained of this property for a long term, so that a hospital for the insane within the Borough of Brooklyn may be maintained for the very acute, the very feeble, and the very violent cases, for which a journey of forty-five mile to Kings Park is a distinct detriment at the time of their commitment. If the re-lease referred to is obtained, it is understood that it will be the policy of the State to erect a psychopathic hospital in connection with the Flatbush property, for the reception and treatment of incipient cases of mental disease. If this re-lease of the property at Flatbush to the State for a long term can be brought about, it will be the policy of Dr. Dewing, as superintendent of that institution, to conduct it on lines similar to those pursued at Kings Park and to make the Flatbush Hospital, not only a model hospital for the care and treatment of the insane, but of much value to the medical profession in Brooklyn in connection with the study of mental disease, bringing it into close touch with the medical profession.—*N. Y. Med. Jour.*

## BOOK REVIEWS.

CONCERNING THE EFFECTS OF SALINE WATERS (KISSENGEN, HOMBURG) ON METABOLISM. By Prof. Carl von Noorden and Dr. Carl Dapper. N. Y., E. B. Treat & Co., 1904. 92 pp. 8vo. Price: Cloth, \$0.75.

Like the preceding monographs by Von Noorden and his colleagues the present number is of much interest, and its conclusions differ in some respects from commonly received notions. These conclusions, in brief, are as follows: The use of saline mineral waters will in many cases of gastric catarrh cause an action and permanent increase in the production of HCl; in numerous cases of hyperacidity their moderate use decreases the formation of HCl; their administration does not call for any particular diet, and fat, raw fruits, salads and vinegar may be allowed; and, finally, the dilute saline mineral waters increase the excretion of uric acid sufficiently to justify their use in cases of uric acid retention.

G. R. B.

CONTRIBUTIONS TO PRACTICAL MEDICINE. By James Sawyer, M.D. Fourth Edition. Birmingham, Eng., Cornish Bros., 1904. 227 pp. 12mo. Price: Cloth, 3s.

This work discusses various subjects of every-day interest. Some of the contributions are very brief, others of some length. The topics embraced are the causes and cure of insomnia, the cure of gastralgia, inspection in diseases of the lungs and pleura, accentuation of the pulmonary second sound, floating kidney, the cure of habitual constipation and the treatment of its several forms, intestinal obstruction, backache, cure of chorea and eczema, various therapeutic methods, and diet in diabetes.

"Contributions to Practical Medicine" is from the pen of Sir James Sawyer, and was originally published about twenty years ago. It is written from the clinical side, and contains much that is of value in one's daily work. It is based upon careful study of many cases, and is most delightfully written in the leisurely, cultivated, and somewhat stately style of the elder English clinicians. If style is the man the author is worth knowing.

G. R. B.

A MANUAL OF FEVER NURSING. By Reynold Webb Wilcox, M.A., M.D., LL.D. Phila., P. Blakiston's Son & Co., 1904. vii, 9-236 pp. 12mo. Price: Cloth, \$1.00.

This book consists substantially of a course of lectures given to the pupils of a training school for nurses. About eight out of two hundred and thirty-seven pages are devoted to nursing proper; the remainder to brief descriptions of febrile diseases, with especial reference to the nursing care and the management of emergencies in each. There are very few illustrations. The clinical chart figured is of a poor kind. There is no reason why there should not be a separate space for the respiration curve, instead of recording it in red ink; and a space should be added for the daily urine record. The book is well written, up to date as far as examined, and of a thoroughly practical nature. It will be a useful possession to the nurse, the student, and many practitioners.

G. R. B.

URIC ACIDS: AN EPITOME OF THE SUBJECT. By Alexander Haig, A.M., M.D. Oxon. F.R.C.P. Phil., P. Blakiston's Son & Co., 1904. viii, 158 pp. 8vo. Price: Cloth, \$1.00.

As its title indicates this book is an epitome of the somewhat peculiar views of its author. He has written so much and so often upon this subject that his theories and practice are familiar to the reading medical public. Those who are his adherents will peruse this volume with pleasure and satisfaction. Those who venture to doubt the all-embracing pathogenic rôle of uric acid will go through it with pleasure in its style, admiration for its special pleading, and much doubt as to the correctness of the major portion of its conclusions.

G. R. B.



PRACTICAL MEDICINE SERIES OF YEAR BOOKS. VOL. VI. GENERAL MEDICINE. Edited by Frank Billings, M.S., M.D., and J. H. Salisbury, M.D. May, 1904. Chicago, Year Book Publishers, 1904. 330 pp., 12mo. Price: Cloth, \$1.00.

The plan and execution of this series of year-books have been previously commended in these columns. The present volume is a very satisfactory presentment of the gist of the more important articles which have appeared within the past year concerning the infectious diseases, and diseases of the mouth, esophagus, stomach, intestines, peritoneum and liver. Critical and explanatory comment is provided by the editor—a valuable feature of the book. G. R. B.

MEDICAL DIAGNOSIS. Special Diagnosis of Internal Medicine. A Handbook for Physicians and Students. By Dr. Wilhelm von Leube. Authorized transl. from the Sixth German Edition. Edited, with Annotations, by Julius L. Salinger, M.D. N. Y. and Lond., D. Appleton & Co., 1904. 1058 pp. 8vo. Price: Cloth, \$5.00.

This fine work deals almost exclusively with the differential diagnosis of medical diseases. The author's plan does not involve a consideration of the methods of clinical examination.

v. Leube's book has for a long time been familiar to German and German-reading physicians. It was a happy thought of the translator, Dr. Salinger, and the publishers to present it, through the medium of an excellent translation, to the English-reading medical public. Six editions in twelve years attest the favor with which it has been received in the Fatherland of its author.

The translation contains fewer German idiomatic constructions than is usual in such work, although occasional obscure phrases and sentences are encountered. Illustrations are sparingly used. The work of the publishers is up to its usual high standard.

The book does not lend itself to detailed criticism; nor, indeed, is such criticism needful. In the interest of increased accuracy in differential diagnosis, and because of the practical value of this work of reference, it is to be hoped that a copy will find its way into the working library of every medical clinician. G. R. B.

PRACTICAL MEDICINE SERIES OF YEAR BOOKS. VOL. IV. GYNECOLOGY. Edit. by E. C. Dudley, A.M., M.D., and Wm. Healy, A.B., M.D. March, 1904. Chicago, Year Book Publishers, 1904. 216 pp. 12mo. Price: Cloth, \$1.00.

In this little volume, Drs. Dudley and Healy have surpassed their efforts in any of their previous additions. Of course the success of a book of this character depends to a certain extent upon the amount of new material brought out by the world's leading gynecologists during the year, and yet a great deal of credit is due to the wise judgment of the editors in selecting from this mass what they consider worth preserving, the proper indexing and systematic arrangement of it under appropriate headings, and for the short illustrated papers by the editorial staff.

The book is divided into six parts:

Part I.—General Principles of Gynecology.

Part II.—Infectious and Allied Disorders of Vagina, Urethra, Bladder, Ureters, Uterus and Adnexa.

Part III.—Tumors and Malformations of the Vulva. Urethra, Broad Ligament, Ovaries, Tubes and Uterus.

Part IV.—Traumatism of Perineum, Cervix and Genito-Urinary Tract.

Part V.—Displacement of the Uterus.

Part VI.—Disorders of Menstruation and Sterility.

There is a larger proportionate amount of material from American gynecologists than appears in previous Year Books, some of it having been furnished by members of the Brooklyn Gynecological Society.

As a whole the book deserves a favorable reception and there is little to criticize.

The reviewer would venture to criticize that part of Dr. Doran's article, pages 118, 119, referring to drainage of non-septic cases of myomectomy (in which it has been necessary to split the broad-ligament and go down deep in the pelvis for the enucleation) and advising the

suturing of the capsule to the lower end of the abdominal wound, instead of closing in the usual way. His reason for doing so condemns his own technic, "the cause of the parametritis is suppuration of a hematocoele or phlegmon developed around an infected ligature." (He uses silk.)

Careful attention to asepsis, the selection of proper suture material and ligatures and the control of all hemorrhage before closing the wound should leave nothing to be desired in the successful handling of such cases. If for any reason oozing from the tissues can not be controlled, packing and vaginal drainage would be preferable to uphill drainage through the abdominal wound and not endanger the successful closure against hernia. FREDERIC J. SHOOP, M.D.

ANÆSTHESIA IN DENTAL SURGERY. By Thomas D. Luke, M.B., F.R.C.S.E. N. Y., Rebman Co., 1903. xii, 178 pp., 2 tab. 12mo. Price: Cloth, \$1.50.

The author has written a very instructive volume upon anæsthesia from the standpoint of the dentist. A short history of anæsthesia is given dividing the honor of discovery rightly between Wells, Morton, and Simpson. The value of the various anæsthetics is judiciously discussed and the correct emphasis placed upon nitrous oxide gas as the safest and best anæsthesia for dental purposes.

WILLIAM FRANCIS CAMPBELL.

PROGRESSIVE MEDICINE. Vol. IV. Dec., 1903. Diseases of Digestive Tract and Allied Organs; Liver, Pancreas, and Peritoneum—Anæsthetics, Fractures, Dislocations, Amputations, Surgery of the Extremities, and Orthopedics—Genito-Urinary Diseases—Diseases of the Kidneys—Physiology—Hygiene—Practical Therapeutic Referendum. Phil. & N. Y., Lea Bros. & Co., 1903. 444 pp., 6 pl. 8vo. Price: Cloth, \$2.50.

This volume is of rare interest to the surgeon, giving, as it does, the latest advances in anæsthesia, fractures, dislocations, amputations, surgery of the extremities, orthopedics, and genito-urinary diseases and diseases of the kidneys, while physiology, hygiene, and practical therapeutics complete a volume which is full of suggestive thought along the lines already indicated.

WILLIAM FRANCIS CAMPBELL.

INFANT-FEEDING IN ITS RELATION TO HEALTH AND DISEASE. By Louis Fischer, M.D. *Third Edition*. Phil., F. A. Davis Co., 1903. xvi, 357 pp., 8 pl. 8vo. Price: Cloth, \$1.50.

That this book seems to meet with approval is evidenced by the fact that it has reached its third edition in four years. When we examine into the reason for its popularity, we find it difficult to explain, unless it be that it contains a little of everything pertaining to milk, the chemistry of foods, and dietetics. The matter is, however, not very systematically arranged. There is sometimes considerable lack of accuracy of statement. For example, on page 15 he states that the "property of gastric juice in infants is the transformation of albumin first into albumose, then peptone and lastly syntonin." On page 24 he says: Erythrodextrin is a mixture of dextrine and soluble starch. He contradicts this in another place. He gives, on page 27, a general formula of fats, after discussing the various fats and showing their different composition. At another place he calls glycerin a fat. On page 62 he says that the sugar in human milk increases as lactation proceeds, and on page 63 he says it does not vary. He often mixes up quotations in such a way that one is unable to know who to credit with some of the popular and unscientific statements. For example, on page 130, such expressions as "ripe milk," "ripe casein" are used. Also the statement that during the incubation of an egg, the albumin is converted into casein. On the same page he describes the condition he finds on making his autopsies on cows. This page gives evidence of being a quotation, although it is not credited to any one. While there is much valuable matter in the book, there is also much that is unnecessary and confusing. A little careful editing of the large number of quotations would greatly improve the book.

A MANUAL OF PRACTICAL HYGIENE, for Students, Physicians and Medical Officers. By Charles Harrington, M.D. *Second edition.* Lea Bros. & Co., 1903. Price: Cloth, \$4.25.

This book, consisting of 760 pages, is one of the best books on the subject in the English language. It is more than its title indicates. It is, at the same time, a general treatise on hygiene and a manual of sanitary chemical analysis. It covers a wide range of subjects, treating them concisely and clearly, and this edition has been brought up to date in a very creditable way. It is remarkably free from unnecessary and tedious details, and yet states about what is known under each heading, covering the whole range of what the Health Officer should know. It can be recommended to those for whom it was written.

THE PRACTICAL CARE OF THE BABY. By Theron Wendell Kilmer, M.D. Phil., F. A. Davis Co., 1903. xiv, 158 pp., 1 ch. 8vo. Price: Cloth, \$1.00.

This is a practical, concise description of how to care for a baby in detail. It assumes that the mother knows nothing about a baby and must be taught all the little things that go to make up a baby's life. It is full of these little things, illustrated by photogravures. It does not pretend, as many such books do, to inform a mother how to treat the ailments of babies. It does aim to tell the mother when she should call in the assistance of a physician. It is therefore a judicious and helpful guide for the young mother and as such is a safe book to recommend to mothers who wish to know how to care for their first-born.

PRACTICAL MEDICINE SERIES OF YEAR BOOKS. JUNE, 1903. VOL. VII. Pediatrics, edit. by Isaac A. Abt, M.D. Orthopedic Surgery, edit. by John Ridlon, A.M., M.D. Chicago. Year Book Publishers, 1903. 232 pp. 12mo. Price: Cloth, \$1.25.

This small work is an excellent review of the year's literature on the diseases of children. Such works as these are valuable to the pediatricist as well as to the general practitioner, as they collect and classify the most important facts and comments upon the subjects of which they treat and save an immense amount of unnecessary reading. The abstracts are generally well made and present the conclusions of the authors without the padding and chaff. This small work is to be commended for what it omits as well as for what it states.

PORTFOLIO OF DERMOCROMES. By Prof. Jacobi. English adaptation of text by J. J. Pringle, M.B., F.R.C.P. N. Y., Rebman Co., 1903. Vol. 2. ix, 83-181 pp., 43-86 col. pl. 4to. Price: Full Leather, \$8.00; Half Leather, \$7.50.

It is needless to say that the second volume of this excellent work is as good as the first. While it is difficult to say whether one plate is better than any other, still to one accustomed to seeing skin lesions in the living subject would be especially struck with the perfection of the plates illustrating the toxicodermias. The complete work contains 165 illustrations, 85 colored plates and 6 in black and white. The Reviewer wishes to take this occasion to correct a mis-statement in the review of volume one. Having seen the German edition a number of months before seeing the English, he was under the impression that the success of the German work had made a demand for an English translation. This was not so, for the Rebman Co. published the work in Berlin, London and New York simultaneously.

J. M. WINFIELD.

COMPEND OF PATHOLOGY: GENERAL AND SPECIAL. A Student's Manual in One Volume. By Alfred Edward Thayer, M.D. *Second Edition.* Phil., P. Blakiston's Son & Co., 1903. xxiv, 17-711 pp. 12mo. Price: Flexible Leather, \$2.50.

This is a volume of 771 pages, on good paper, and showing excellent typography. It is divided into twenty-three chapters and one hundred and thirty-one illustrations. It is systematic, covers the general principles of pathology, and pathologic anatomy, and presents a wide range of useful facts for either student or practitioner. On the whole, Prof. Thayer has presented us with probably the best "Compend of Pathology" to be found in the market—a work which every student and practitioner of medicine should possess.

JOSHUA M. VAN COTT.

A MANUAL OF GENERAL PATHOLOGY. For Students. By Sidney Martin, M.D., F.R.S., F.R.C.P. Phil., P. Blakiston's Son & Co., 1904. xix, 502 pp. 8vo. Price: Cloth, \$4.00.

This excellent work of nineteen chapters is comprehensive and thoroughly up to date. Particular attention is paid to immunity in all its phases, and the author has introduced more than the usual amount of pathological chemistry. There is sufficient of novelty and uniqueness in the book to make it very desirable for either student or practitioner, and necessary for one who makes a special study of pathology. In style and general treatment the work is thoroughly English.

JOSHUA M. VAN COTT.

PRACTICAL MEDICINE SERIES OF YEAR BOOKS. VOL. V. OBSTETRICS. Edited by Joseph B. De Lee, M.D. April, 1904. Chicago. Year Book Publishers, 1904. 220 pp. 12mo. Price: Cloth, \$1.00.

Dr. De Lee's contribution to the Practical Medicine Series of Year Books is a well digested summary of recent obstetric progress. The literature of the year has been well covered. The abstracts are excellent and are well arranged. The views of different writers on a given subject are grouped together, facilitating reference. Frequent criticisms by the editor in his usual terse and incisive style have added much interesting and profitable reading. Though no epoch-making discoveries have been recorded, the book affords ample evidence of activity among the workers in this important field of medicine.

H. F. JEWETT.

OBSTETRIC AND GYNECOLOGIC NURSING. By Edward P. Davis, A.M., M.D. *Second Edition Revised.* Phil., N. Y. and Lond., W. B. Saunders & Co., 1904. 402 pp., 18 pl. 8vo. Price: Buckram, \$1.75.

To no department of medicine is the average nurse more indebted for her livelihood than by obstetrics and gynecology. In no line of practice are we more dependent on her skilled co-operation. Dr. Davis's excellent work places not only the trained nurse out the medical profession and the public under obligation.

In the present edition many revisions have been made and new matter has been added. Little more than one-half the book is devoted to obstetrics, the rest to gynecology. The teachings in both subjects are eminently practical. This is as it should be. The nurse has little use for theory. What she needs most to know is what to do and how to do it.

An excellent feature of the book is the attention given to the duties of the nurse in matter of gynecic surgery and in office work. In these things the average graduate nurse is sometimes deficient.

The book will be found a useful guide to all interested in its particular sphere.

CHAS. JEWETT.



# BROOKLYN MEDICAL JOURNAL

VOL. XVIII.

BROOKLYN-NEW YORK, OCTOBER, 1904.

No. 10.

## ORIGINAL ARTICLES.

### THE NERVE ELEMENTS OF UTERINE CONTRACTIONS.

BY WILLIAM LEWIS CHAPMAN, M.D., AND LEWIS N. FOOTE, A.M., M.D.

Contraction of the uterus may be induced by stimuli directed from three different sources: 1. Direct irritation of the uterine muscle. 2. Reflexly, through the irritation of those parts whose nerve supply has connections with the nerve elements of the uterus. 3. Direct impulses arising in or from the central nervous system.

The first form due to direct irritation of the uterus is evidenced in the following clinical observations: *a.* The uterus is caused to contract by the kneading of it through the abdominal walls. *b.* A foreign body in the uterine cavity, as when the hand is introduced to control a post-partum hemorrhage, will induce uterine contractions. *c.* Premature labor may be induced by the insertion of a catheter or the injection of some fluid, such as glycerin, into the uterus. *d.* The gravid uterus will frequently abort from being handled during operations upon other pelvic structures. *e.* The physiological irritability of the uterus is exhibited during the latter months of pregnancy, when contractions are common, due to the distention and the stretching of its muscular fibers. *f.* (1) If the uterus or a portion of it be removed during labor and placed in saline solution, it will continue its contractions. These facts demonstrate that form of contraction which is induced by direct irritation applied to the uterine walls.

The nerve elements, responsible for these contractions, are found in the terminal sympathetic ganglia imbedded in the substance of the uterus, which are capable of a limited automatic action. (2)

The second form of contraction may be observed under the following conditions: *a.* Stretching or reaming of the perineum, in order to soften it and prevent laceration, will produce increased activity in the uterine contractions. *b.* Pressure of the presenting part upon the pelvic floor

greatly accelerates the contractions during the second stage of labor. *c.* In such cases of pregnancy as are complicated by a fissure of the rectum, the physiological irritability of the uterus, during the latter months, is greatly aggravated. *d.* Irritation of the clitoris, in cases of uterine inertia, will produce contractions. *e.* Slapping the abdomen with the end of a wet towel was, at one time, a popular method of stimulating the contractions. *f.* Irritation of the mammary glands, produced by the nursing infant, causes strong and at times painful contractions of the uterus.

The nerve elements in this reflex form of irritation are complex, and in one form or another involve all the nerve paths to the uterus.

The stretching of the perineum, fissure of the rectum, and pressure upon the pelvic floor may be grouped together as they all derive their nerve supply from the same source. The entire pelvic outlet, including the rectum and vagina, are supplied by the sacral plexus. The muscular and integumentary portions are supplied by the sacral plexus of the spinal nerves, while the mucous surfaces of the vagina and rectum are supplied by sympathetic plexuses which are derived from the sacral portion of the ganglionated cord. The uterine plexus is composed largely of fibers derived from the sacral ganglia joining with the third and fourth sacral nerves. All these nerve paths have their reflex center situated in the lumbar portion of the spinal cord, the sympathetic plexuses having secondary reflex centers in the sacral ganglia. The hypogastric portion of the uterine plexus has also connections with the lumbar section of the spinal cord through the rami communicantes of the first and second lumbar ganglia.

Realizing this fact, that the nerve paths to the various structures of the pelvic outlet have the same primary and secondary reflex centers as the uterine plexus, it is easy to understand how impulses from those parts may produce reflex phenomena in the uterus.

The nerve supply to the clitoris varies considerably from that of the adjacent structures in the pelvic outlet. Its nerve supply is rich and complex. Its spinal connections are through the

pudic with a communicating branch from the third sacral after that nerve has supplied the bladder, also receiving filaments from the genital branch of the genito-crural and the inguinal branch of the ilio-inguinal. Its sympathetic nerve supply comes from two different sources, viz., the vesical plexus, which is a segment of the pelvic or sacral plexus and from the ovarian plexus through the branches which follow the round ligaments and are distributed to the labia and clitoris.<sup>(3)</sup> This rich nerve supply having, as it has, a double spinal as well as a double sympathetic nerve connection, makes the clitoris especially susceptible to irritation. Any consideration of the many ills which are brought upon the general system through irritation of this organ would be out of place in this connection; still the anatomy of its nerve supply indicates the influence that may be exerted through it upon the functions of the uterus. Irritation of it not only accelerates uterine contractions during labor, but may disturb the uterus in its function of menstruation. Through the pudic, the third sacral, and the vesical plexus, it is capable of conveying reflex impulses to the uterine plexus by the same paths described for the other structures in the pelvic outlet, and in addition to this it has a direct reflex path through the ovarian plexus.

The irritation of the integument over the recti and external muscles produced by slapping the abdomen with a wet towel covers an area supplied by the lower six dorsal and the ilio-hypogastric nerves. The lower dorsal nerves are connected with the ovarian plexus through the splanchnics, while the ilio-hypogastric is connected with the hypogastric plexus of the sympathetics through the rami communicantes of the first lumbar ganglion. The hypogastric plexus enters into the formation of the uterine plexus and the reflex paths through which this source of irritation passes may be readily traced.

The reflex excitability produced through the mammary glands during the nursing of the infant, is a much more complex and interesting phenomenon. The mammary gland has a double spinal and a double sympathetic nerve supply. Its spinal nerves are derived from the third and fourth intercostals and the supraclavicular branches descending from the superficial cervical plexus. It receives its sympathetic nerve from the plexuses accompanying the intercostal arteries and the internal mammary artery. The sympathetics following the intercostal arteries, as well as the intercostal nerves themselves, are connected with the dorsal ganglia and through the

ganglia, with the splanchnics. The sympathetics accompanying the internal mammary artery and the supraclavicular branches of the cervical plexus are connected with the second and third cervical ganglia. These two with the first dorsal ganglion are intimately united, and their efferent branches form a plexus beneath the subclavian artery, known as the annulus of Vieussens. Communicating branches from this plexus are given off to the pneumogastric, phrenic and recurrent laryngeal nerves. As described in a previous paper <sup>(4)</sup> both the vagus and the splanchnics enter into the formation of the ovarian plexus.

The irritation of the mammary gland which produces reflex disturbances in the course of the vagus and the splanchnics is not only exhibited in the contractions of the uterus, but there may frequently be observed, while a mother is nursing her infant, a rolling of gas in the abdomen, indicating an excited intestinal peristalsis.

The nerve paths through which these reflex stimuli, as above illustrated, travel to the uterus and the location of their spinal and sympathetic reflex centers may be easily grasped; still the fact should not be lost sight of that the mental condition of the subject undoubtedly plays an important rôle in these phenomena.

The third form of uterine contractions, or those due to impulses derived from the central nervous system, are observed during menstruation and labor.

That the uterus and tubes undergo rythmical contractions during menstruation has been noted by many observers. The contractions are painless, and the patient is entirely unconscious of them except under pathological conditions.

Painful menstruation may be due to various abnormal conditions involving the pelvic organs or their nerve supply, viz.: 1. Extreme flexions of the uterus upon the cervix, causing mechanical obstruction to the flow, with consequent distention of the organ. 2. Inflammatory conditions of the adjacent tissues. The increased congestion of the pelvic tissues during menstruation may aggravate an existing inflammatory state, or if the condition be one of long standing, accompanied by adhesions of the uterus to adjacent structures, the contractions of the uterus will produce tension upon these adhesions, causing paroxysms of pain. 3. Pathological conditions involving the nerve fibers in their course to the uterus. Other causes of painful menstruation might be mentioned, but these are sufficient to prove the statement that pain during menstrua-



tion is always due to some pathological condition, and that under normal physiological conditions the uterine contractions during the menstrual epoch are absolutely painless.

Menstruation and its causation have been a fertile field for speculation. It is enough to state here that it is a function of the uterus and tubes. The viscera are all under the control of the central nervous system, and their functions are performed unconsciously, becoming painful only under pathological conditions. The contractions of the uterus during menstruation resemble those to be found in other viscera, viz.: the peristalsis of the intestines and the ducts of the secretory glands. They are rythmical and produce no pain, indicating that they are under the control of purely visceral nerve elements.

The interdependence of ovulation and menstruation need not be discussed here. It is sufficient to state that they are under the control of the same nerve supply. That the ovarian plexus exercises the controlling influence in the function of menstruation has been proven in previous papers by the following arguments: 1. The ovarian plexus supplies the parts concerned in menstruation, viz., the ovaries, Fallopian tubes, and upper uterine segment. 2. The plexus is composed solely of visceral nerve elements. 3. The direct connection of the plexus with the visceral centers of the central nervous systems and also with important visceral ganglia of the sympathetic system. 4. Pathological conditions involving the nerve fibers of the ovarian plexus in their course disturb the function of menstruation.

It is fair to assume that menstruation, being under the control of the ovarian plexus, the contractions accompanying it are under the same nerve influence, these contractions being normal to the functional activity of the organs involved during this process.

The source of uterine contractions in labor and the cause of its onset have been accounted for by many theories, viz.: 1. Over-distention of the uterus. 2. Full development of the foetus. 3. Periodicity, *i. e.*, labor generally occurring at the time for the tenth menstrual period. 4. An excess of  $\text{C.O}_2$  in the blood. 5. The return of waste products into the blood which have been utilized by the developing foetus. 6. The termination of the internal secretion of the corpus luteum. All of these theories have some foundation, and probably each one plays some part in the causation of labor; but after all labor is produced by impulses derived from the visceromotor centers of the central nervous system.

The fact to be determined is, through what nerve paths are they conveyed to the uterus.

In order to classify the various nerve elements involved in the process of labor and the parts played by the different plexuses supplying the uterus, it is essential to possess a definite knowledge of the physiology of labor. The teaching that "the uterus is merely a hollow muscle, which distends throughout gestation and then contracts and expels its contents," must be discarded. Labor is a more complex phenomenon.

Authors differ as to the starting point of the contractions. Some claim that the process begins at the cervix, and from there spreads over the body and fundus of the uterus. Others state that the contractions start in the body and fundus, while still others state that the cornua begins to contract first. As the result of a series of experiments upon pregnant cats and dogs, in some cases labor being induced, while in others the uterus was caused to contract through electrical stimulation—in all cases the contractions were found to start in the Fallopian tubes, and from thence spread downward, in a wavelike manner, over the entire uterus. The result was similar in all the cases, no matter in what manner the stimulation was applied, whether to the uterus directly or to the nerve paths. The contractions started at the distal extremity of the tubes.

Certain clinical phenomena indicate that these observations, deduced from experimentation upon the lower animals, are applicable to the human subject. It is common to observe the membranes becoming tense or the presenting part descending before there is any tension noticeable upon the os. Frequently, while examining a patient in labor, one may be able to detect the onset of a pain before it is recognized by the patient herself. The uterine contractions of labor are painless until they reach the point where tension is exerted upon the lower uterine segment. The pain of labor is a pain of distention. The contractions of the uterus during labor and previous to the stage of producing pain, are similar to those of menstruation; they are simply indicative of functional activity of the uterus. This activity of the uterus during labor may be divided into two distinct processes, contraction and retraction. These forces are equally necessary for the successful accomplishment of parturition. While their action has been described in a previous paper, (<sup>4</sup>) it may be well to recall here that it is the process of retraction which gradually diminishes the cavity of the uterus, forcing its contents in the direction of the least resistance.

This may be considered the most important factor in the onset of labor, and it is safe to say that labor cannot be considered in progress until this process of retraction is established. Contractions take place during the latter part of gestation, but they are painless. They become painful only when the process of retraction causes them to produce tension upon the os.

Every organ has certain actions peculiar to itself and certain actions in common with other organs. As has been stated, the uterine contractions are analogous to the peristalsis of the alimentary canal and other tubes provided with both circular and longitudinal muscular fibers, whereas retraction is a distinct function of the uterus, it being found normally in no other organ. This would indicate that this process is under the control of the visceral nerve supply to the uterus, and that the impulses conveyed to it through these paths have their origin in the viscero-motor center for this organ, in the central nervous system.

Minot (<sup>5</sup>) states that "the structural changes which take place in the uterus during menstruation are identical with those which occur during gestation, being simply prolonged and intensified during the latter process." From this he concludes that menstruation and gestation are physiologically homologous. It has been pointed out in previous papers (<sup>4</sup>) that the tropic impulses responsible for these changes are conveyed to the uterus through the ovarian plexus.

Besides the arguments presented, in previous papers, it may be briefly stated here that the ovarian plexus conveys to the uterus, the impulses which induce the process of labor, from the following conclusions: 1. The contractions start in the portions of the uterus supplied by the ovarian plexus; 2. that the contractions are visceral in character and therefore dependent upon visceral nerve elements; 3. that the process of retraction, which is under the control of the ovarian plexus, is the more important factor in the process of labor; 4. that menstruation and the onset of labor are physiologically homologous and under the control of the same nerve elements.

When the process of labor has been established all the nerve elements are brought into action, and as the uterus retracts, its walls are caused to press upon its contents. This pressure excites the automatic action of the terminal ganglia embedded in the uterine walls and their action intensifies the force of the contractions. As tension is exerted upon the lower uterine segment the uterine plexus is brought into action. This

greatly reinforces the nerve elements already at work through the spinal reflexes of this plexus, which are augmented by the automatic action of its accessory and terminal ganglion, i. e., sacral portion of the ganglionated cord and cervical ganglion of Frankenhauser. The fact that the uterine and ovarian plexuses inosculate within the broad ligaments is an indication that at times they exert a joint influence.

The connections between the nerve supply to the muscles of the abdomen and pelvic outlet, and the nerves of the uterus have been noted. As labor becomes still more advanced, and the irritability of the uterus and adjacent tissues increases, reflex influences are exerted upon these muscles and the accessory forces of labor are brought into action.

When the foetus is expelled the reflex elements cease and further action of the uterus is under the control of the visceral nerve supply. The process of retraction continues, closing up the uterine sinuses and detaching the placenta. The placenta now acts as a foreign body and excites the terminal ganglia, which cause the uterus to contract and expel it.

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As this practically completes our investigation of this subject, we wish to take this opportunity to thank those who have so kindly aided us. Dr. Wm. F. Campbell, Dr. J. M. Van Cott and Dr. C. B. Bacon have supplied us with anatomical material for dissection. Dr. J. H. Raymond gave us the privilege of the Hoagland Laboratory in which to conduct our experiments. Dr. Geo. McNaughton supplied us with specimens from his clinic. Dr. Chas. Jewett, Dr. Wm. Browning, Dr. B. Onuf and Dr. H. A. Fairbairn have called our attention to literature upon the subject and suggested works for reference reading. Dr. E. H. Bartley has supervised our work, and his experience as a writer and a teacher have been of great value to us.

To the above mentioned we wish to express our sincere thanks, for without their assistance and kind encouragement this work would never have been carried on.

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# APOPLECTIC MOTATION.\*

## A METHOD OF DISTINGUISHING PROGRESSIVE CEREBRAL HEMORRHAGE.

BY WILLIAM BROWNING, M.D.

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A query is sometimes raised as to the value of treatment in apoplexy if we are not first able to determine with some certainty whether the seizure be due to hemorrhage, embolism, thrombosis or other cause. By due regard however to the age, personal history and health status of the patient, the prodromata and mode of onset—where these facts are at command—we are in many cases able to make a satisfactory diagnosis. And the symptoms that appear as the case develops may make our conclusions more definite.

Still, the recognized manifestations of the "Insult"—such as headache, dizziness, tinglings, faintness, mental obtusion, stupor, coma or other disturbance of the sensorium, altered pulse and bounding carotids, palor or cyanosis, aphasia, incoherence or delirium, paresis paralysis or sensory impairment of one side, convulsive movements or other focal sign, stertor, pupillary changes, conjugate deviations, nausea, altered tendon-reflexes, plus or minus temperature, together with such bodily conditions as hypertrophy of the left ventricle or signs of nephritic or other urinary change—these may or may not be present in brain hemorrhage; none are constantly so, and no single one is pathognomonic. And it has been found impossible even by lumbar puncture (v. Stadelmann, *Deut. med. W'chr.*, 1897, No. 47) to reach a differential diagnosis—unless in rare cases of meningeal hemorrhage, and in any of the hemorrhagic cases the method is liable to do great harm.

Another symptom, that of vomiting, may also be referred to, although it has received scant attention. At times it is of great importance in diagnosis. Unfortunately for this purpose, however, it does not usually appear in the strictly cerebral cases until the hemorrhage has reached considerable volume and may be due to other causes. Hence it may not aid in the early stages when most needed. On the other hand, it appears more promptly when the effusion is into structures in the posterior fossa.

Sighing and yawning are additional points that have not yet been evaluated. While they are common in all forms of brain-hemorrhage,

they seem also to occur in embolic and all vascular apoplexies.

What has been said refers, of course, to cases that run a moderate or slow course, this class, in my experience, being greatly in the majority, though there are some that die or drop into coma without other evidence of "Insult."

If we turn to embolism, the great diagnostic criterion is the known existence of a source from which the plug may have originated. But here are two chances for error—either the source may not be found despite its existence, or a person with such a possible cause may nevertheless happen to suffer a hemorrhage instead. And the symptomatology of cerebral embolism presents in itself nothing that decisively distinguishes it from the other forms. Even the onset may not be strikingly sudden.

For the differentiation of thrombosis softening or any of the miscellaneous forms, we have age, syphilis, season, etc., but as to distinguishing symptoms little else than prodromata which are uncertain both in occurrence and significance.

Hence in the diagnosis of apoplexies an element of uncertainty too often remains, autopsies show us our fallibilities, and in many cases we either err or realize that our conclusion is but too largely a guess. It is, I think, generally realized that further aids to the differential diagnosis are needed.

It is in addition very desirable, and in traumatic cases most important, to have some indication of the continuance or cessation of the outpour. At present this can only be guessed at by the increasing severity of the symptoms—at best but an approximate and indecisive matter of judgment.

Now, in addition to the above means of differentiation, there is a manifestation that I have noted many times in these cases and that after control observations for nearly a score of years I feel warranted in calling attention to with some confidence in its value. The known signs and aids are not to be discarded or minimized, but rather taken into consideration also as an essential part of any plan of diagnosis.

The symptom to which it is desired to call attention is a somewhat special form of physical inquietude, which may suitably be termed Apoplectic Motation (unrest). With this and almost an integral part of it there is usually an anxious expression of countenance. As restlessness or perturbation is a common enough condition from many causes—and often from no special cause at all—it has to be considered with regard to any

\* An old term from a Latin source signifying to keep moving.

special features it may show and in connection with a possible or presumptive diagnosis based on other facts.

The urgency of these cases may interfere with any exact study of them at the instant, but on occasion the particulars have been noted soon after and thereon the description is based.

The restlessness in these cerebral cases has a type or character in all its variations that is somewhat special and definite. The over-motility may effect more particularly the head and the adjacent parts. It involves, however, no single portion of the body exclusively. In the early stages it is rarely violent or excessive as to any one movement. It is fairly frequent or continuous, yet commonly there is an instant or longer pause between each start or motion. It occurs in the unconscious as well as the conscious up to the point of general relaxation (as in deep coma).

The patient may turn the head from side to side uneasily, throw the head backwards or move it here and there, draw up a lower extremity and presently extend it again, rub one foot against the other, roll a leg about, throw an arm around in any direction, put a hand to the head either aimlessly or to rub face or scalp, may turn and twist the body (an agitation rather than a writhing) first to one side and then soon to the other, etc. It may even require an attendant to keep the person covered or in bed; it is probable, however, that this severer type only occurs when there has been a considerable loss of blood from the general circulation, and involves an added principle. These various motions may be made slowly as if with an effort or for no special purpose, or again in more rapid succession. Of course not all of these movements need appear in the individual case.

The symptom has no particular reference to the side that is affected, except that it may diminish in the part that is weakening. In the severer cases the impression may be of one in discomfort or seeking to escape annoyance. It is, however, not of merely mental origin, although such an interpretation of it is likely the reason why it has not received appreciation clinically. Nor is it the subsultus and picking at things that we sometimes see in fever or delirium. It is an irritative phenomenon as much as twitching, convulsions or vomiting. In fact, in one Jacksonian case (lad of 17 years, seen with Dr. Bender in Feb., 1896; traumatism; trephining showed hemorrhage into the respective cortical center) the restlessness became so excessive between the convulsions as to indicate that it was a phase of

the same thing, much as the jerks, twitches, etc., that occur as interval manifestations in epileptics.

When the deeply comatose or stertorous condition develops, the pronounced restlessness usually subsides, an inert focus is much the same whatever its nature. Even then the history of its occurrence during the developmental stage of the attack can usually be gleaned, and serves us in the diagnosis of the condition.

The anxious or distracted facies is an early sign, but may or may not be so pronounced a feature as the disquietude. And here the psychic element appears to play a more distinct, though not exclusive, part. Certainly, of the two, the inquietude continues longer towards the unconscious state.

There are various other troubles, more or less cerebral, though non-apoplectic in character, that may be attended with restlessness great or slight. Some persons seem normally affected with it. In certain forms of feeble-mindedness in children, in some of the insane, in cases of spermatorrhœa, a general uneasiness and impulse to be on the move may be noted. In the delirium of fever, in alcoholism, in long-continued pain-conditions (e. g. abdominal colics), in many cases of meningitis notably cerebro-spinal, in peritonitis, in pericarditis, in the choreiform disorders, in persons under great nervous tension, etc., etc., restlessness is common. But none of these are liable to be confounded with hemorrhagic apoplexy.

Perhaps it may be best to refer briefly to a few illustrative cases.

#### HEMORRHAGE.

I. The first in which I particularly recall noticing this manifestation was seen in 1885. The patient was an exceedingly spare single lady well beyond middle life. She was found just after coming out of a warm bath. The attack was as yet in the developing stage when I saw her. She could still speak, asked for a towel to catch the vomitus, etc. The eyes, nearly closed, were in conjugate deviation upward and to the right. Face drawn to the right. The left arm moved a little, but was about powerless. She lay more on the left side, and the head was turned strongly that way. The left leg seemed stiff. Complained once of pain in the head. Pupils small. Chilliness, probably from moisture of the skin. Much vomiting. During all this onset stage she was in a state of gentle but extreme and almost continuous unrest; this affected especially the head. It became so distressing that finally an hypodermic of morphine was given, a procedure that I should



now disapprove of in view of the infinitely better effect of depressants. A long period of coma followed, with hemiplegia and subsequent partial recovery.

II. Another case that may be briefly referred to is one that was also No. 2 of my paper on the abortive management of cerebral hemorrhage. (*N. Y. Med. Journal*, 1902, Feb. 15.) Seen in September, 1900. There was a primary seizure, and a recurrence within an hour or two. Each time the unrest, a general uneasiness and disquiet of manner quite as much as definite movements, was marked during the progressive stage, but ceased promptly with the evident control of the bleeding. Patient still alive and well.

III. A case of traumatic extra-dural hemorrhage of considerable volume demonstrated this feature to a very marked degree during a whole day and more of unconsciousness. The patient was a woman injured in a trolley accident the evening of June 26, 1902; first seen by me two days later at the Reception Hospital, Coney Island. Restlessness began definitely by June 27th, less than a day after the injury. Immediately after the accident she had been able to walk about, and the hemorrhage could hardly have been of much size for some hours at least. Despite the pain and soreness all over, the uneasiness when seen was so great that it was feared that she would wear out her strength in that way alone. Trephining and removal of the clot was done by Dr. Barber. The unrest immediately disappeared and a good recovery slowly resulted. As the bleeding here went on very slowly, the restless stage was unusually prolonged. And at the operation it was immediately evident that the effusion was still progressing. Although some 46 hours after the accident, the presence and persistence of this symptom gave the warrant for diagnosing a still progressing hemorrhage. It is not often that there is so good a chance to positively prove the correctness of this indication.

IV. Mr. B., 57 years old, seen with Dr. Madden in Feb., 1901. A gouty, very energetic man of affairs, suffering from chronic nephritis. He suddenly developed a left hemiplegia from which he largely recovered. At that attack the typical restlessness was noticed. By quiet and depressants the seizure was promptly controlled and the agitation as quickly subsided.

V. Mr. K., 57 years old, born in Germany. Seen with Dr. Jos. E. Wells, Nov. 6, 1902. Is a prosperous mechanic. Dark complexion. He

had been steadily at work up to Sunday, Nov. 2d, when he collapsed in the basement. Persons standing near him noticed that he dropped a key from his hand and soon fell unconscious. Within a quarter of an hour he vomited freely, but largely blood it was claimed. He had spit blood in the meantime, so this vomited blood may have been just swallowed; the important fact is the vomiting. The next night he vomited twice, mostly seltzer and milk, an hour or more after swallowing it.

A lagging of the left facial was immediately noticed, and a distinct drawing of the face to the right was remarked by the doctor next day. Since this trouble it is difficult for him to swallow and part of the material may not get down. He has spoken some since, chiefly the first two days. Has several times complained that the left side of the head hurt him severely. He corrugates brow and scowls mostly on the right. There is a heavy bruising and discoloration over the left mastoid. Has never been known to faint. Breathes now with a little blowing of the cheeks when his mouth is shut. He did stand up the first and second day, but not since. P. 102 and strong. R. 20. Left eye tends to drop outwards and is not quite closed. That conjunctiva is much congested, but the right not. Right arm shows a little biceps and radial jerk, while the left does not. If he wishes to urinate he still indicates it to them in some way, as by increased restlessness. T. to-day 103.0 in rectum.

There has been no twitching or convulsion. But the stupor has been progressive. Ever since the onset of this trouble he has been very restless, thrashing about in bed and trying to get up. He is now under some opiate, but the restlessness continues whenever he slightly awakens up.

There was some question whether in falling he had injured his head back of the left mastoid, or whether he had suffered a primary apoplectic seizure and in falling casually injured the scalp. We concluded that he was in either event suffering from encranial hemorrhage, and more likely a primary than a secondary effusion. He was placed on internal depressants, and the increase of his trouble promptly stopped. Within a few weeks the doctor reported that the man was again able to get out on the street some, although not as yet feeling very good or clear in his head.

More details of these and many other cases might be given, but it does not seem necessary. The negative side of the case also calls for some presentation.

## EMBOLISM.

In a number of cases of cerebral embolism I have seen nothing of the kind, and rarely is there a report of even a slight transient uneasiness. Coarse valvular lesions were present in each.

VI. Man about 40. At the time participating in a public meeting. Seen within a few minutes of onset. Treated with fluids and stimulants. Favorable outcome. No trace of increased motility at any period of attack.

VII. and VIII. Two cases in men between 30 and 40 years of age; seen in April, 1904; one in Brooklyn and the other at Bay Shore. Each a man of active life and vigorous physique. The symptom was not present when seen a few hours after onset, nor had it been previously noticeable according to observers. Each patient had been in bed for active endocardial trouble; then on getting up and making effort (the one in walking, the other in stair climbing) the plug was set loose and a severe hemiplegia developed.

IX. In the case of a youth of 16 years, seen with Dr. Applegate in May, 1897, just getting about from an attack of acute rheumatism. It was said by the parents that at the onset of the embolic complication he had been "somewhat confused, uncomfortable and restless," as well as aphasic, a condition that promptly abated though the paralysis remained.

## SOFTENING.

At no stage of this affection does there appear to be any tendency to restlessness. Delirium stupor and paralysis may run their course and even spasmodic symptoms occur without the feature in question. This applies whether the softening be due to thrombosis or unknown causes. In forms of pseudo-seizure and in brain-tumor it is likewise absent.

X. Mr. F., 62 years old, seen in Oct. and Dec., 1902, with Dr. Waterman. Great nervous strain, then sickness in the family, and ensuing mental depression. All tendon reflexes excessive. Increasing general enfeeblement. The development of softening was attended by much delirium and wandering talk, but none of the restlessness, coma after a few days gradually supervening.

XI. Mr. A., 63 years old, seen in Feb., 1903, suffering from gas poisoning. First feeble then strong pulse. Hemiparesis, delirium, slight vomiting, etc., but none of the restlessness. (Relative recovery; death from secondary pneumonia). Poisoning with illuminating gas is not

rare, and even when at some stages attendant by excitement and delirium, this symptom is absent.

XII. Man of 68 years, laborer, admitted Dec. 13, 1903, to the Kings County Hospital. Attack began three days previously with sudden loss of power in the left side of the body. No history of loss of consciousness at onset, but gradual impairment of it since. At admission he was "in a semi-coma. can be roused, but soon lapses again;" was able to give a few answers as to himself. The left side of the face appeared at that time weakened, and the left extremities paretic. Later the left arm and leg became completely paralyzed; left side of face not quite fully so. Slight tremor in left leg muscles. Pupils equal and reacting slowly. Cutaneous and tendon reflexes noted as lost (but which not specified). No vomiting at any time. No suggestion of restlessness; he just lay as he was placed; and this was the same the whole four days under observation. Slight distension of abdomen. No oedema of extremities, though some cyanosis of same. Pulse tense; beginning oedema of lungs, heart sounds clear and strong. Sclerotic vessels. He grew weaker and died the morning of December 17. No hemorrhage was found in the brain, but a considerable patch of softening and disintegration in the right caudate and lenticular nuclei.

The symptoms and nature of the seizure in this case seemed at first to point strongly to cerebral hemorrhage. But he did not respond to corresponding treatment, there had been no vomiting, nor was there at any time any restlessness. With these aids a proper diagnosis might be arrived at.

## LIMITATIONS.

While this symptom occurs in cerebral hemorrhage, even if only into the membranes, the cases so far do not show positively that it is characteristic of pontile or cerebellar effusion. For that matters pons rupture either soon ceases or runs into coma, and hence does not offer much of a field. In the cerebral cases further it is a question whether this sign appears with the onset of the hemorrhage or only after it has reached some though limited proportions. It increases more or less for a time with the enlargement of the focus. But some indication makes itself evident at a very early stage—at that time as much in a general uneasiness of manner as in specific acts, and this may be apparent even while the person is still sitting up.

In those rapid cases where death or immediate coma supervenes, this mark may of course fail us.



In the rare cases associated with convulsive phenomena this feature may easily be masked, or interpreted as part of the spasm. Occasionally there will be an ordinary case that seems to disprove the certainty of this symptom; but, as in the one with autopsy just mentioned, when it is possible to definitely establish the facts the uniformity of the rule is surprisingly borne out.

As the symptom is hardly one that can be measured with exactness it must depend for its value a little on the observer and a careful estimation of surroundings and circumstances.

How does this cause act?

In a general way it is known that the sudden loss of a large quantity of blood, to a degree of exsanguination, may induce bodily restlessness. It is perhaps chiefly in hemorrhage from pelvic organs that this has been noted, although observed when from other parts as, *e. g.*, the stomach. Pain dyspnoea and in open cases the psychic fright may play a part, and still more the disturbance of the circulatory equilibrium. It is then that the more violent and continuous movements are seen. It would appear, however, that a much smaller loss in the cranial cavity than elsewhere (<sup>1</sup>) may suffice, and that in ordinary cases of this kind the manifestations are a little different. To that extent it is a local sign.

Consequently in explanation of this symptom two principles appear to be in play—one a general effect of considerable losses from any part of the body, the other a local irritative effect of even a small focus if developing in or upon the cerebrum. And in the present cases it is naturally the latter factor that plays the chief rôle.

Cessation of the symptom.

That the restlessness ceases as soon as the outflow stops has been shown by a number of cases. In two where trephining was done, no trace of it was present on coming out of the anesthetic; and in one of these where despite coma it had previously been excessive practically no anesthetic was used and no special motion occurred after the removal of the button. In other cases treated medically it promptly ceased with other evidence of the termination of the flow. The importance of this indication in cases where surgical interference is in question was proven by one of the cases given above.

<sup>1</sup> From one and a half to two ounces is about the limit to the size of an outpour before the interruption of psychical functions as shown by the advent of coma, though "more can be tolerated in a diffuse effusion like a meningeal hemorrhage than in a confined focus." And as cases show this long in advance of the comatose stage, the amount must as yet have been small.

Does the rapidity of the outflow of itself make any difference?

It is certainly noticeable in the slower forms, but it is also seen where the effusion develops rapidly.

How long can this manifestation last?

It may persist for hours and even days, where the pouring-out is sufficiently slow, or it may go by quickly when the hemorrhage is rapid.

Has this sign any localizing value within the cranial space?

It does not appear to have any, not even in distinguishing extra- from intra-dural forms if large. Consequently it must be classed as a general cerebral symptom, one not pointing to any particular location.

Previous knowledge of this symptom.

While it may have been frequently noticed and possibly described, it receives no definite recognition in current works. Armstrong, in Buck's Reference Handbook, 1902, vol. iv. p. 634, treating of conditions elsewhere, says that in "rapid loss of a large quantity of blood the patient becomes rapidly pale, cold and restless." Mills, sub Encephalic Hemorrhage, in his large work says, p. 456, "When consciousness is imperfectly retained, he may show some tendency to move to one side and to toss about the unparalyzed limbs."

In general, however, it is strikingly true that while a considerable number of symptoms are dwelt upon with more or less detail, the one to which attention is here directed is not mentioned at all, or only in an indefinite manner and with reference to the form that attends large losses of blood. As an actual and distinctive manifestation it has apparently received no recognition. Whether new or not it should receive the valuation that its importance warrants.

#### FIBROID TUMOR OF THE ABDOMINAL WALL.\*

BY J. R. TAYLOR, M.D.

I was called by Dr. Wells, of Sag Harbor, on September 16, 1901, to see Mrs. George R—, aged twenty-five years and mother of two children. The last child was just six months old. She was troubled by the presence of a tumor in the right side of the abdomen, just above the umbilicus, which had first been noticed between the second and third months of her pregnancy. When first noticed it was quite painful, but when I saw her it was only annoying from pressure by corsets

\*Read at a Meeting of the Brooklyn Gynecological Society, June 3, 1904.

or clothing. It was freely movable laterally, but could not be moved in a perpendicular direction. Beginning at the umbilicus, it extended upward in the line of the right rectus muscle for apparently three inches. I advised its removal, and with the patient's consent this was done, under ether, on the following day.

The fibers of the rectus muscle were thinned and pushed aside by the tumor, which projected into them. Its origin was the posterior sheath of the rectus and it was difficult to remove without opening the peritoneum, to which it was quite adherent. The peritoneum, however, was rather thick and was not opened. There were only a few small vessels to tie and the incision was closed with catgut sutures and zinc oxide plaster. There was primary union of the incision.

The tumor measures two inches in length, one and one-half inches in breadth, and one inch in thickness.

Microscopical examination shows it to be a pure fibromata.

As this is the first growth I have found in the abdominal wall in twenty-six years of practice, I have looked up most carefully the literature of the subject, with the following result.

If we may judge by the small number of cases reported, fibroid tumors of the abdominal wall are very rarely seen in this country, while abroad they are not uncommon. Lisfranc, in 1837, was the first to write on this subject, followed by Dewolf in 1839, Boulenger in 1842, Sappey and Limange in 1850. The last two cases were supposed to be cancerous, but Langenbeck, who comes next on the list, recognized the benign character of the tumor. Langenbeck records the first fatal case, the growth impinging on the peritoneum, part of which was also removed; death from peritonitis occurred on the fourth day.

About 1860 there were enough cases reported to permit of a systematic study of the subject, which was undertaken by Huguier, who proved these tumors to be fibromas—non-malignant, but frequently so closely associated with the peritoneum as to endanger that membrane during the operation. He saw six cases. In one he attempted extirpation, removed some pieces, closed the incision, and the patient recovered; in one he did complete extirpation, with recovery; in three he did nothing. In his last case he tied the "pedicle" subcutaneously, which caused only some shrinkage of the tumor.

Nelaton in twenty-six years saw only fifteen or twenty of these growths. Labbi in twenty years

met only ten cases. Bilioth in twenty-three years operated on fourteen fibromas of the abdominal wall, with twelve recoveries and two deaths.

In the *London Medical Times and Gazette* for January 8, 1870, Baker Brown reported a woman, aged thirty-six years, married and mother of three children, who had a tumor midway between the umbilicus and the pubes which in fourteen months had grown from the size of a walnut to that of a foetal head at the seventh month. This tumor grew from the right rectus muscle across the abdomen, partially under the left rectus. The tumor weighed twenty ounces and was a fibroma. The peritoneum was opened during its removal, but the patient recovered.

E. Bellamy, in the Transactions of the Pathological Society of London, May 17, 1870, reports the case of a woman, aged twenty-seven years—a prostitute—who had a tumor on the right side growing from the conjoined tendon. It had been growing for seventeen months. Death from peritonitis on the third day after operation, although the abdomen apparently had not been opened.

T. G. Thomas, in the Transactions of the Obstetrical Society of New York, January 21, 1879, reports a fibroid springing from the posterior sheath of rectus at epigastrium. When first seen, the tumor was of the size of a duck's egg and irregular in shape. Patient was pregnant and operation was delayed in consequence. On her return the tumor had grown to nine inches long and six inches broad, dipping deeply into the abdominal cavity and interfering with respiration. The peritoneum was not opened during the operation and the patient recovered.

Cornelius Williams, in the *NEW YORK MEDICAL JOURNAL* for January, 1880, reports a tumor four inches long by three inches broad, in the right inguinal region, with a fibrous attachment to the anterior superior spinous process of the ilium—present since a gestation about three years previous, when it was first discovered just under the border of the ribs, in the right hypochondriac region. After delivery it gradually descended to its present location. In dissecting it out it was found to lie under the aponeurosis of the external oblique and peripheral fibers of internal oblique and transversalis muscles. The peritoneum was not opened and the patient recovered.

H. T. Hanks, in the *American Journal of Obstetrics* for 1880, reports the case of a woman, aged twenty-four years, married, and the mother of two children, who had a slight tumor in the lower abdominal wall on the right side. Ten months later it was the size of a goose egg.



When the second child was born it gave no trouble during labor. At the end of eighteen months it measured  $4\frac{1}{2}$  by 5 inches, lying between Poupart's ligament and the median line on the right side. It grew from the under surface of the internal oblique, lying between it and the transversalis muscles. She made a good recovery.

At the meeting of the New York Pathological Society, March 8, 1882, Dr. C. K. Briddon presented a tumor weighing two pounds eight ounces, removed from the abdominal wall of a woman twenty-seven years old, the mother of three children, the youngest born December, 1881. In the second month of her last pregnancy she first noticed a tumor in right iliac fossa, about the size of a man's fist, which was, by many eminent gynecologists who saw it, supposed, to be ovarian. It continued enlarging until, at its removal, March 4, 1882, it measured nine inches long, five inches wide, and was found to start from the lower portion of the internal oblique and transversalis muscles. The peritoneum was exposed over an area of four inches square and was found to be considerably thickened. The patient made a good recovery and examination by Dr. Satterthwaite showed it to be a fibromyoma.

In the *Chicago Medical Journal and Examiner* for May, 1883, Dr. R. G. Rogers reported that Mr. Allen, aged twenty-eight years, about two and one-half years ago noticed a small lump in the abdominal wall, a little above and to the left of the navel. It increased steadily in size, but was neither tender nor painful, though uncomfortable from the pressure of clothing, or anything striking the abdomen. Examination showed a tumor about the size of the fist, a little to the left of the navel, extending to near the border of the ribs, not movable laterally, upward or downward, able to be pressed backward somewhat, but not lifted forward—the skin freely movable over it, resonance behind it. Diagnosis: fibroid tumor growing in sheath of rectus muscle. Extirpation advised and performed. The tumor found springing from the posterior sheath of rectus muscle, which was very much thinned over it. Good recovery in ten days.

In the *NEW YORK MEDICAL JOURNAL* for January, 1883, Dr. H. T. Hanks reported a fibroid tumor which was the second he had removed from the abdominal wall of the same patient within three years, and a third one had been removed by another physician. The first tumor was situated between the internal oblique and transversalis muscles on the right side, near Poupart's

ligament, while the last one was situated in the transversalis muscle on the left side, near the umbilicus, and had more the characteristics of malignant disease. The pathological report by Dr. Wm. H. Welch was as follows: "The specimen hardened in alcohol showed the following condition—a dense fibrous base supporting numbers of spindle cells in spots and groups of round cells were seen. There were places where the prominence of the spindle cells suggested sarcoma. The tumor, both from its clinical history and its essential structure, may be classed among the so-called recurrent fibroids."

The president, Dr. C. C. Lee, remarked that a recurrence of fibroid tumors in muscular tissue was very exceptional, this being the only case of the kind which he had seen.

In the *New York Medical Record* for December, 1887, Dr. Robert F. Weir reports a huge fibroma of the abdominal wall which he mistook for an ovarian tumor. It had apparently started from the transversalis fascia, was nearly spherical, weighed about fourteen pounds, and measured twenty-four inches in circumference. During the operation the abdomen was opened, but the patient made a good recovery.

In the *American Journal of Obstetrics* for 1888 Dr. John Homans, of Boston, Mass., reports removing, in May, 1883, a large fibroma of the right abdominal wall which involved the right transversalis fascia and peritoneum. The abdomen was opened during the operation, but the patient, aged thirty-one years, made a good recovery. The tumor measured five inches in diameter, two inches in thickness, and weighed  $2\frac{1}{4}$  pounds.

In the *Clinique* for 1894 Dr. Wm. Thompson, of Chicago, reports a case of fibroid cyst of the inferior aponeurosis of the right rectus abdominalis in a patient twenty-eight years of age. The tumor was about the size of a child's head. The peritoneum was torn open during the operation, but carefully closed with fine catgut, and the patient made a good recovery. The tumor sprang from the posterior sheath of the rectus muscle.

In the *Transactions of the American Association of Obstetricians and Gynecologists* for 1888, Dr. Charles A. L. Reed, of Cincinnati, Ohio, reports having seen six cases in fourteen years, one of whom died forty-eight hours after operation. In this case the peritoneum was torn. The tumor measured nine inches in length by five and one-fourth in breadth, and was pyriform in shape, with the apex toward the pubes.

Olshausen of Berlin has seen twenty-two cases

of fibroma of the abdominal wall in twelve years, and Ledderhose recorded one hundred cases of abdominal tumor, of which seventy-two were counted fibromata and eighteen, on account of the rich mixture of spindle cells or infiltration of round cells in their composition, were classed as sarcomata.

The size of the tumors varies greatly, and though usually about the size of a hen's egg, Ols-hausen reported one measuring sixteen inches by sixteen inches. The form naturally depends on the environment, and they usually project toward the surface of the body instead of into the peritoneal cavity and the tense stretching of the skin over them is characteristic.

The diagnosis is comparatively easy. The prominence of the tumor, its lateral mobility, perpendicular fixation and ill-defined borders are characteristic while it is of small or moderate size; but when it becomes large it loses more or less of these differential signs and we may find it difficult to define its character and exact situation. In the largest cases reported (those of Weir, Weinlechner and Rokitsansky) the tumors were supposed to be intra-abdominal.

The treatment may be summed up in one word—extirpation. Should the abdominal cavity be opened during the operation, it should not, in the light of our present technique, make any real difference in the result to the patient.

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#### NOTES ON THE TREATMENT OF CARDIAC INSUFFICIENCY: WITH REPORT OF A CASE OF DIPHThERITIC MYOCARDITIS.\*

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BY EDWARD E. CORNWALL, M.D.

In the following notes on the treatment of cardiac insufficiency and the appended case report, no new remedies or methods of treatment are exploited. In fact, so far as the writer is aware, no discoveries of particular value in this branch of therapeutics have lately been made. Therefore he can only tell his experiences with and opinions of, remedies and methods which are well known.

Cardiac insufficiency is a clinical, not a pathological term. It refers to a condition in which the heart fails to keep the circulation of the blood up to the needs of the body. The symptoms which accompany this failure of the heart form a well defined group, and their treatment constitutes a distinct phase of symptomatic treatment.

The object of therapeutics in this condition is,

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\*Read at a Regular Meeting of the Medical Society of the County of Kings, Sept. 20, 1904.

of course, to restore and maintain the cardiac balance. We advance toward that object along the following lines: We treat causative and complicating diseases; we regulate diet, hygiene, and conduct of life; we regulate the nervous control of the heart; we reduce to a minimum the work which the heart has necessarily to do; we relieve front pressure arising from resistance in the arterial system; we relieve back pressure due to overdistention of the veins; we relieve outside pressure caused by masses in the neighborhood of the heart; we increase the strength and perhaps the size of the heart muscle; and we stimulate the organ to more vigorous action.

Morbid conditions which cause or complicate cardiac insufficiency often require treatment before the heart symptoms can be relieved. Discussion of their treatment will be passed over with an allusion to a case of neurasthenia in which occurred frequent attacks of heart weakness causing the patient to fall to the ground in partial syncope. Stimulants and sedatives were powerless to prevent these attacks, but they ceased entirely after the daily application to the spine, for a few weeks, of a cold water douche.

An important factor in regulating the nervous control of the heart is the maintenance of a good morale. Patients not infrequently make their condition worse by worrying about it. The writer recalls to mind a young woman with a moderate valve lesion apparently compensated who worried so much about her heart that she became hysterical. Her attacks of hysteria broke down the compensation and she died. She might have lived long if the early management of her case had secured a good morale. It is a wise rule never to tell a patient with heart disease what is the matter with him unless we know him well enough to be sure that the knowledge will do him no harm, or unless it is absolutely necessary to enlist his co-operation in treatment. In every case, however, his condition and prospects should be fully explained to his family, and when the prognosis is at all doubtful it is better to lean a little to the side of gravity. The consequences to the patient and his friends are less distressing if a mistake in prognosis is made on that side.

We reduce the work of the heart to a minimum by rest, quiet of mind and sleep. In bad cases of cardiac insufficiency rest is an indispensable, and in mild cases often a sufficient remedy. It is required to a greater or less extent in every case.

How long rest in the recumbent position should be continued is sometimes a very nice question to



decide. It may do harm in some cases if kept up too long, and if not maintained long enough in others success may be missed. If cases of fatty heart are kept in bed too long the organ may be seriously weakened, and if cases of valvular disease are allowed to get up too soon after compensation has been established relapses may occur. In general, we may say that the recumbent position should be used with more caution in the old than in the young, and in diseases of the myocardium than in valvular disease.

When rest in bed is required for a long time after all disagreeable symptoms have disappeared the patient and his family are apt to rebel. To prevent this rebellion or minimize its bad effects we should explain clearly and forcibly to the patient or his family the reasons for the prolonged rest and the dangers of getting up too soon. These reasons and dangers should be frequently alluded to and even harped on. The patient and his family should not be allowed to forget them. In uncompensated valve disease in children it may be laid down almost as a positive rule that the patient should be kept in bed as long as possible. The family can usually be relied on to let the child get up quite soon enough if the physician never gives his formal consent. Several months' stay in bed after compensation has been established does a child no harm, and it is not too great a price to pay for a reasonable security against relapse.

Sleep greatly diminishes the work of the heart, but dyspnoea and restlessness often prevent sleep when there is cardiac insufficiency. Cardiac dyspnoea is best relieved by morphin, but that drug checks the intestinal secretions and is contraindicated when there is kidney disease. It is, however, often the only drug that will give relief. The writer has found a pill containing a grain each of sumbul, valerian and asafetida surprisingly potent as a sedative in cardiac restlessness of moderate degree such as that due to fatty heart or some of the neuroses. Among hypnotics trional deserves mention as a reasonably safe and efficient sleep producer.

Front pressure on the heart is caused by resistance in the arterial system, which is chiefly due to contraction of the arterioles or their compression in congested or cirrhotic tissues; back pressure is caused by overdistention of the veins which pour more blood into the heart than it can get rid of. Both these pressures can be relieved to a remarkable extent by purgation and diuresis. The relief thus obtained greatly increases the ability of the heart to respond to direct stimula-

tion. Venous stasis frequently fills with fluid the large serous cavities and the subcutaneous tissues. If purgatives and diuretics fail to relieve those conditions we can tap or puncture; but puncturing for subcutaneous dropsy is an operation to be avoided if possible. If absolutely necessary, it should be performed antiseptically, with a blunt pin, and without drawing blood. Dry cupping gives great relief in congestion and edema of the lungs, but it is done with difficulty on patients who are much emaciated.

Of the outside masses which press on the heart the most common are accumulations of fluid in the pleural, pericardial and peritoneal cavities, and accumulations of gas in the stomach and intestines. The treatment of the former has been suggested in the preceding paragraph. The latter are treated by diet, carminatives and anti-dyspeptics. Dyspepsia often greatly aggravates cardiac insufficiency. Sometimes it is functional, but frequently it is caused by passive congestion, thus exhibiting one of the many vicious circles which are produced by insufficient action of the heart.

Our hope of maintaining the cardiac balance after it is restored lies in the heart muscle. This muscle is strengthened by good diet and hygiene, by tonics, by improvement in the general circulation, which includes the circulation through the heart muscle itself, and by carefully regulated exercise. Exercise is an important remedy in heart disease, but in this brief paper it can only be alluded to; and we pass on with a statement of the rule that no exercise should be allowed that produces the slightest symptoms of cardiac strain, and the corollary, that when there is any doubt about permitting exercise it is best not to allow it.

Besides making easy the work of the heart and strengthening its muscle, the treatment of cardiac insufficiency includes direct stimulation of the heart. This stimulation is produced by the use of various drugs, and though food, oxygen, electricity, exercise, excitement, all increase the heart's action, they are not directly used as heart stimulants in practical therapeutics. Drugs of late seem to have taken a position of relatively diminishing importance among therapeutic agencies in many clinical regions, but in cardiac insufficiency they still hold a most prominent place, and are likely always to do so.

First in the list of heart stimulants is digitalis. This drug directly contracts the muscle of the heart and arterioles and stimulates the vagus nerve, thereby causing a strong and slow action

of the blood pump. Its effects are tardily developed and are cumulative, and it is decidedly irritating to the stomach. Notwithstanding these disadvantages it is our most efficient agent for restoring compensation in valve disease and reducing dilatation when the myocardium is not degenerated. It is of little value in myocardial disease. In full doses it is a powerful diuretic. On account of its vasoconstrictor effect it is contraindicated when the blood pressure is already high, though it may be used in selected cases with high blood pressure if guarded with a vasodilator such as potassium iodide or, possibly, nitroglycerin. The best preparation for use when full therapeutic effects are desired as quickly as possible is the freshly made infusion, which ought to contain the drug's active principles in their greatest strength and purity; but for continued use the tincture is perhaps the most convenient preparation and the one most likely to be reliable as dispensed by the average druggist. The gastric irritation which it produces is caused by certain fatty and narcotic constituents, and there is now on the market a tincture freed from those constituents which is said to be as active as the whole tincture. The same cannot be said of digitalin, though that preparation has considerable value and is convenient for hypodermatic administration.

In view of the cumulative and vasoconstrictor effects of digitalis we are fortunate in having a drug which is capable of taking its place on occasion. This drug is strophanthus. Strophanthus contracts the muscle of the heart very much as digitalis does, but has little or no effect on that of the arterioles. It acts much more quickly than the latter drug, is not cumulative, and does not irritate the stomach. For restoring compensation in valve disease and reducing dilatation it is almost as efficient as digitalis, and when the blood pressure is high it is a better drug to employ. Its range of usefulness covers that of digitalis except that it is a less powerful diuretic, and in addition it can be used with advantage in myocarditis and some of the cardiac neuroses. It is best given in small doses at intervals of three or four hours. A drawback to its use is said to be difficulty in getting reliable preparations. That difficulty may have existed formerly, but it can not be very pronounced now, for the writer does not remember ever failing to get an effective preparation dispensed on his prescriptions. Of late he has made sure of his preparation by dispensing it himself in tablet form.

Two other stimulants which act directly and chiefly on the heart muscle are caffeine and spar-

teine. Caffeine has considerable value as an emergency stimulant and is an efficient diuretic in combination with other drugs. Sparteine was highly lauded by its first exploiters and still has many admirers; but the writer has a suspicion, founded on a limited experience with it, that its value as compared with other heart stimulants has been overrated.

Strychnine is a heart stimulant of the first rank. It acts principally, if not entirely through the nervous system, probably by heightening the excitability of the cardiac and vasomotor centers in the cord and brain. It is useful in nearly all forms of cardiac insufficiency, but particularly in diseases of the myocardium. It is our most valuable drug in fatty heart. As an emergency stimulant it is probably more used than any other. It is the best stimulant for a failing heart in ether or chloroform anesthesia; and the anesthesia can be facilitated and the subsequent nausea and depression considerably relieved by the injection of a small dose a little before the anesthetic is begun and again shortly before it is stopped. It can be given for long periods apparently without injury, though a habit may be formed. A patient of the writer aged seventy-eight, with a bad fatty heart, has taken an average of a sixth of a grain daily for the past nine months, and has thriven on it. A fact about strychnine often overlooked is the difference in susceptibility to its effects which exists among different people. Doses of a sixtieth of a grain have caused cramps and diarrhea in the writer's experience, and he has seen doses of a fifteenth of a grain produce only mild therapeutic effects. No doubt this drug is often prescribed in doses which are unnecessarily large, but little harm probably results as it is not dangerous in any reasonable dose.

Alcohol is a valuable heart stimulant both for emergency and for continued use—the latter chiefly in fevers and toxemias producing myocardial weakness. Morphin, atropine, ammonia, ether, camphor, are valuable emergency stimulants. Morphin not only prolongs life in the cardiac moribund and makes his end easy, but frequently it carries him safely over crises which he could not have passed without it. The strong heart stimulant quality of morphin has in the past failed of the full recognition which it deserves probably on account of its overshadowing great qualities as an analgesic, hypnotic and anti-spasmodic.

Amyl nitrite and nitroglycerin are not true heart stimulants though often used as such. They



relax the muscular walls of the arteries and the resulting fall in the blood pressure relieves the heart of so large a part of the resistance against which it has to pump and renders its action so much easier that they seem to stimulate it. They should not be given when the blood pressure is low. They are emergency remedies of positive value within a narrow and well defined range. The use of nitroglycerin as a routine heart stimulant is to be condemned.

The foregoing list includes what may be called in the present state of our knowledge the preferred heart stimulants. If we employ those correctly we can probably dispense with the rest.

In the administration of cardiac stimulants it is an important principle to suit the dose to the capacity of the heart muscle as well as to the urgency of the symptoms. When treatment of a dilated heart is begun its muscle is often too weak to respond to large doses of stimulants, and small doses should then be given, which, if they do not completely relieve the symptoms, at least do not exhaust the feeble organ. Later, when improvement in the cardiac muscle has taken place, larger doses can be given with safety and effect. Also, as soon as the desired result in stimulation has been obtained the drug should be stopped or the dose diminished.

Another principle in the treatment of diseases of the heart is to individualize each case. Routineism should be especially avoided. In few clinical regions is there greater necessity for minutely watching symptoms and effects of treatment. We should not be afraid to seem even fussy in giving much attention to bad cases. By close attention we are sometimes enabled to take advantage of little things which are just sufficient to turn the scale.

In conclusion, indulgence is asked for a brief report of a case which presents some points of interest in cardiac therapeutics, and especially illustrates the value of careful attention to little things.

#### REPORT OF A CASE OF DIPHTHERITIC MYOCARDITIS.

The patient, a boy of nine, was brought to the writer's office in the fourth day of diphtheria. The diagnosis was confirmed by a culture. Antitoxin (2,000 units) was immediately injected, and prompt convalescence from the diphtheria followed, but the patient lay critically ill for many weeks with myocarditis.

Symptoms of myocardial degeneration existed when the antitoxin was given. Those symptoms steadily grew worse for four days, remained sta-

tionary for about a week, and then very gradually improved, but it was six weeks before the patient sat up in bed, and eight weeks before he stood on the floor.

The pulse was soft, irregular, intermittent and slow. It ranged between 40 and 62 during the first four days, being most of the time about 50, and between 50 and 70 during the following week, being much of the time below 60. After that it kept generally above 80, but as late as the sixth week it would drop to 60 and become labored, irregular and intermittent on slight exertion or excitement; and at the present time, more than three months since the beginning of the disease, it is intermittent and variable, and is reduced in speed by exertion or emotion. During the first two weeks its irregularities in force and rhythm were most pronounced. At times in that period it could scarcely be felt, and the intermittences were often of alarming length.

The cardiac impulse was so feeble that the impact of the apex against the chest wall failed to move it visibly, though the labored contraction of the left ventricle which took place with a heaving, spiral motion that seemed to begin at the base, could be plainly seen agitating the chest wall.

The action of the heart was worse at night than in the daytime. During the first twelve days the patient seemed to pass into a state of partial collapse when he slept. Then his pulse became exceedingly feeble and irregular, and he was covered with a cold sweat. Defecation during this period produced like symptoms. Vomiting, which occurred only once, caused less depression of the heart than the bowel movements. After the second week defecation took place without much cardiac disturbance.

There was considerable dilatation of the heart, which probably reached its greatest extent in the second week. In the fifth week it was still marked, but in the following week it was reduced considerably, though some dilatation persisted. The patient claimed to be conscious of the reduction, and said that he "felt his heart back in its right place again." No murmurs were heard at any time.

The patient's general condition was good throughout. He slept well; had no dyspnoea; said that he occasionally felt a "flop" in the region of his heart (until the fifth week), but complained of no other symptoms. He showed some pallor, which was most noticeable in the early weeks and when the heart's action was unusually bad. In fact, so well did he appear to the eye and so free was he from subjective symptoms

that no one looking at him or talking with him would have suspected his serious condition unless he also felt his pulse or examined his heart.

The treatment consisted of the most absolute rest in bed possible, regulation of diet, administration of tonics, and stimulation of the heart. The patient was kept in bed for two months, and after he got up his activities were carefully restricted. During the first few weeks the slightest movements which it was possible to avoid were prohibited. To prevent the exertion of chewing he was kept on fluid diet for a considerable time after his general condition called for solid food. A nurse watched him every minute. Iron was given as a tonic. Strychnine and whiskey were the heart stimulants used, though strophanthus, caffeine and aromatic ammonia were also given. During the first two weeks only strychnine and whiskey seemed to have any effect on the pulse, and that effect was very slight, though large doses were given. After improvement in the heart had taken place the pulse responded to the other drugs, and strychnine and whiskey were more effective in smaller doses. During the later weeks in bed and after getting up strychnine only was used as a heart stimulant.

The diagnosis of diphtheritic myocarditis made in this case was necessarily a clinical one as the happy recovery of the patient precluded the possibility of pathological examination. The soft, slow, irregular and intermittent pulse, the feeble and labored action of the heart, the dilatation, the almost complete absence of subjective symptoms, and the small effect produced by cardiac stimulants, made this diagnosis reasonably certain.

The subject of diphtheritic myocarditis has had considerable light thrown on it by recent investigations. Reports of numerous autopsies on diphtheritic patients, notably those published by the Boston City Hospital, show that extensive degenerative changes in the heart muscle commonly occur in diphtheria; and Collard and Regaud, experimentally injecting animals with the diphtheritic poison, produced myocarditis as a constant lesion. That diphtheria frequently causes myocarditis, though most of the cases die unrecognized, seems to be a well established fact. It is still, however, an open question whether this degeneration of the muscular fiber of the heart is caused by direct contact with the poison circulating in the blood, or whether it is secondary to degeneration of the trophic nerves of the heart, which are known to be carried in the pneumogastric, or whether it is brought about in both ways in some or all cases.

## A STUDY OF SIX CASES OF EXTRAUTERINE PREGNANCY.\*

BY THOMAS BRAY SPENCE, M.D.,

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This paper is based upon the observation of six consecutive cases of extrauterine pregnancy which have come under the care of the writer during the last five years, at intervals of almost exactly one year each. They were all early cases, all were operated upon and all made uninterrupted and satisfactory recoveries.

It is universally believed that the etiology of ectopic gestation can usually be traced to some previous inflammatory attack of the uterus and Fallopian tubes, which has left some perimetric adhesions, and has, perhaps, caused a kinking or stenosis of the tube. Three of the cases here reported acknowledged miscarriages, another had borne a child some years before, and the remaining two, who were single, denied any previous trouble referable to the pelvic organs; but the fact that they were unmarried and refused to admit the possibility of pregnancy, in view of the findings at the time of operation, renders their testimony concerning their previous history of little value and subject to grave suspicion. We might, perhaps, more safely consider these two the probable victims of gonorrheal infection than any of the other four. Predisposition to tubal gestation has not been proved in any of these patients, as none of them had suffered a previous similar attack nor have any of them since had a subsequent attack.

The menstrual history of these cases did not in every instance throw light upon the diagnosis; but in some of the cases the menstrual irregularity, together with the attacks of sudden severe pain, was so typical as to almost settle the question of diagnosis without further examination. Case I went over her time one week, then there was a flow during one day, which ceased and did not reappear again before the operation twelve days later. Case II did not menstruate for two months, and for one month was distressed by the nausea and vomiting of early pregnancy. No flow appeared previous to the time of operation. Case III likewise went two months without the appearance of any bloody discharge. Case IV did not miss a period, but a flow, which she suspected to be the result of a miscarriage, continued for one month up to the time of operation. Case V, a widow, denied any menstrual irregularity. Case VI noticed a flow two and one-half

\* Read before the Brooklyn Surgical Society, June 7, 1904.



weeks after menstruation, which continued for one month and up to the time of menstruation.

Pain is the most constant subjective symptom of this disorder, and, as a rule, it is this which the patient first complains of, although the menstrual irregularities may precede it. One patient told of a slight pain on the affected side for some weeks before the acute attack, the others remembered only the sudden, severe, cramp-like pains in the lower part of the abdomen, which are almost pathognomonic. The pain in these cases was probably the more characteristic because of the fact that they were all of the tubal variety. All of the patients complained of a "sick feeling" at the time of the severe pain, and one of them fell on the floor in complete syncope.

Acute anaemia with slight air hunger, the result of internal bleeding, was present in three of the cases, but it could hardly be considered severe enough to seriously threaten life except in one instance, and then recovery from the operation was prompt and uneventful.

All of the patients but one showed an increase in the pulse rate and a rise in temperature at the time of admission to the hospital. In one case a temperature of  $104^{\circ}$  F. and a pulse of 146 were recorded, both of which dropped to the normal twenty-four hours after the patient was put to bed. Aside from this a temperature of  $102^{\circ}$  F. and a pulse of 120 were the highest observed.

Examination of these patients showed more or less marked rigidity of the abdominal muscles and tenderness on pressure, especially on the affected side. Vaginal examination invariably disclosed a tender, soft and indistinctly fluctuating mass in one fornix. In the three cases in which rupture and bleeding had occurred the mass was larger and less definite in outline, and occupied the posterior cul-de-sac.

There was slight enlargement of the uterus in all of the cases but one. The passage of a membrane from the uterus, which is so commonly described in these cases, was observed in but one instance. This membrane was in the form of a complete cast of the cavity of the uterus and was expelled on the fifth day after the operation on a patient who had missed two menstrual periods.

As will be seen from a review of the symptoms, diagnosis of these cases was not particularly difficult. All of the patients had one or more attacks of severe, cramp-like pains in the lower part of the abdomen; three of them showed marked evidence of internal hemorrhage; four of them complained of menstrual irregularities; five of them had a slight enlargement of the

uterus; and, without exception, rigidity and tenderness of the lower part of the abdomen was elicited, and by means of vaginal examination a soft, tender tumor was found in one of the fornices. In spite of the typical symptoms in one of the unmarried cases, the family physician, unduly influenced by his knowledge of the patient's life and surroundings, disputed the diagnosis and was only convinced of the possibility of pregnancy by the extraction of a three and one-half inch fetus from the left Fallopian tube.

The treatment of these six cases was practically the same in every instance, namely: median abdominal incision, sponging the peritoneal cavity free of blood and salpingo-oöphorectomy of the affected side. In three of the cases considerable blood was found in the pelvis, and in the others only a small quantity was found, it being probable that this small amount of blood was forced out through the fimbriated end of the distended tube without actual rupture occurring. An embryo was discovered in but one case, a thickened tube distended with blood and containing chorionic villi being the usual findings.

The tube and ovary were removed in every case; the ovary, because it was always adherent to the sac and promised to form new adhesions to the intestines if left in place, and also because it was always enlarged, oedematous and softened, and therefore likely to create dysmenorrhoea and other painful symptoms if not removed. Both tubes and ovaries were excised from one patient as a means of prophylaxis, because she was half-witted and given to roaming the streets at all times. What degree of good judgment was displayed in the treatment of this case it is left to my hearers to decide.

Drainage of the peritoneal cavity through the lower end of the wound was resorted to in two of the cases because of the extent of the injury to the peritoneum at the site of the adherent sac. It is probable that both of these patients would have made good recoveries without drainage, and in the light of his more recent experience the writer would advise complete closure of the abdominal wound in similar cases.

One patient suffered considerable depression at the time of operation and received an intravenous saline infusion. She developed a femoral phlebitis on each side during convalescence, but eventually made a complete recovery. None of the other patients suffered from any complications, and all were up within three weeks from the time of operation.

The question of the treatment of ectopic pregnancy has aroused much discussion during the past ten years, and even now there can hardly be said to be a unanimity of opinion in the matter. Different methods must doubtless be followed in the care of early and late cases. The late cases, however, will surely become even less frequent than at present, as the symptoms and the methods of diagnosis of the condition become better known, and the arrest of the progress of the disease by operative procedure is still more widely exploited.

The course of the cases here reported seems to bear out the belief of the majority of good authorities that a pregnant tube should be removed as soon as it is recognized. By no other means than this radical cure can the patient avoid the dangers that menace her health and life. Attempts have been made to classify the different conditions that may be present in ectopic gestation, and on this basis to rule out certain classes of cases from the necessity of operative cure; but the diagnosis has not, we believe, been brought to such perfection that we can thus declare a particular patient free from danger and therefore exempt from the necessity of operation. Under the proper conditions and with the necessary equipment at hand the modern surgical operation has become comparatively free of risk to life and the mortality percentage is now exceedingly small. Does any one believe that extrauterine pregnancy treated by the expectant method will ever be robbed of its terrifying dangers?

The method of attack in these cases varies with different operators, the majority favoring abdominal section, while others, who have perhaps achieved unusual skill in vaginal section, prefer the latter route. The claims made for vaginal section are that the patient suffers less shock, and that a larger percentage afterward bear children than they would if subjected to laparotomy. The great objection made to the operation is that the control of hemorrhage is not certain, and for this reason laparotomy will often be necessary after vaginal section has failed. Many cases of this sort are on record, and operators have not infrequently regretted the necessity of thus exposing their patients to the added dangers of a double operation at a time when they were ill-fitted to withstand the shock. While the writer greatly prefers abdominal section in most instances, he is willing to concede that vaginal section may be the better method at times, and he has recently employed it in a case with very great

satisfaction. The reason for following the method in this instance was that no distinct tumor could be palpated, and, while the course of the case was very suspicious, there was considerable doubt as to the diagnosis. The exploratory incision into the posterior cul-de-sac disclosed some tarry clotted blood and a thickened but empty Fallopian tube. Drainage through the opening effected a speedy cure.

Conclusions drawn from so small a number of cases may be very faulty, but the writer's reading and experience lead him to believe that extrauterine pregnancy is a surgical condition; that the utmost care should be exercised to reach a diagnosis early in the condition, before rupture if possible; that operation is the only proper treatment; and that recovery may be expected in a large percentage of these cases if they are subjected to this prompt and radical treatment.

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#### THE INFLUENCE OF WEATHER CHANGES UPON MAN AND SOME LOWER ANIMALS, WITH A RECORD OF EXPERIMENTS ON PIGEONS.

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E. H. BARTLEY, M.D., AND W. L. CHAPMAN, M.D.

That weather changes have a distinct and noticeable effect upon many animals, including man, has been popularly known for centuries. These effects are mostly such as to produce a noticeable change in behavior some hours before the approach of a storm, and in a general way, the disturbance is in direct proportion to the severity of the atmospheric disturbance. The change in behavior of the lower animals before a storm has generally been spoken of as an instinct, without any attempt to explain it on a physical basis. That there is some physical or psychological basis of these phenomena there can be no doubt.

The effect of atmospheric changes on neurotic individuals, rheumatic and gouty subjects, persons suffering with neuralgia, infectious diseases, phthisis, pneumonia, etc., can not be explained on any other supposition. Dexter, in his recent book on "Weather Influences" arrives at the conclusion that the disturbances are purely nervous or psychological. He conducted an extended study of the relation between changes in weather and the deportment of children at school and of inmates of prisons, the records of arrests for assault, cases of suicide, sickness, drunkenness, and occurrence of errors made by bank clerks.

He arrives at the conclusion that there is a discernable relation between weather changes and sickness as well as deportment. He has made no



inquiry into the kind of sickness produced by weather changes, nor does he give us a tangible explanation of the facts observed. From observations upon lower animals, one is forced to believe that those most affected are insects like the ant, the bee, and birds. The nervous system in the lower forms of life differs from that in man in having a much more highly developed sympathetic than a cerebro-spinal system. From this fact one might infer that whatever these influences are they must affect largely the sympathetics. In support of this idea, we have the well known influence of weather changes upon the intestinal disorders of infants, such as a prolonged hot dry spell, or a sudden change from hot to cold, damp weather, etc. This is because of the fact that the secretory and motor functions of the intestine are depressed or inhibited, and these functions are under the control of the sympathetic nerves. Similar effects are observed in some adult subjects of intestinal indigestion with autointoxication. We have under observation three cases of this condition who all affirm that they can predict a storm by the ballooning of the large intestine, and concomitant nervous disturbances, which can only be explained by an inhibition of either the secretions, the motor function of the intestine, or both of these. In three cases of habitual pretempestual disturbances an elevation of about one degree in temperature was repeatedly noted.

A similar rise in temperature has been observed in rheumatic and tubercular subjects. Whether these slight disturbances, in the latter cases, are due to the nervous disturbance or some other cause connected with the malady it is impossible to say, but in the three cases of habitual disturbance, hysterical in character, the elevation in temperature was certainly from a disturbance in the nervous system, probably the sympathetic.

The sole cause of the production of animal heat is chemical change or a combustion of tissues and food products.

Or, to put it in another form, an increase in body temperature means an increase in tissue metabolism, which process is controlled through the trophic action of the sympathetic ganglia. The origin of the nervous impulse which starts the increased action might be in the heat centers in the corpus striatum or it may be in the solar plexus. It would be difficult to suppose that such impulses could originate from such a cause in the cerebrum of a bird or an insect. As the influence is more marked in lower animals in whom the sympathetic is most highly developed, it would

seem more logical to believe that the impulses originate in the sympathetics.

To place in review the symptoms noted in human subjects, viz., neuralgias, rheumatic pains, asthmatic and gouty attacks, nervous agitation, inhibition of motor and secretory functions in the intestines, with increased activity of intestinal bacteria, the increased metabolism in the tissues, irritability of temper, changed deportment, increased tendency to drunkenness, etc., one has an array of symptoms which show a marked disturbance of the nervous system and metabolic processes.

Some of these sensory disturbances can not well be observed in the lower animals, but the metabolic changes ought to be studied in them with comparative ease.

If we take an elevation of temperature as a measure of increased tissue change one would expect to find more disturbance of temperature in the lower animals than in man, provided that the origin of the disturbance was chiefly in the sympathetic ganglia, because of the predominance of the abdominal brain in these animals. We should expect the greatest temperature changes in those animals whose temperatures are most fluctuating and most easily disturbed. The temperature of birds is more erratic than in most other animals, and we should expect them to show such changes under weather influences more readily than most mammals.

Moreover, the ability to predict storms seems to be more highly developed in birds than in most other animals. The authors are able to confirm the above conclusions by a series of experimental observations upon pigeons. These results we obtained as an accidental occurrence in the course of experiments undertaken for an entirely different purpose.

In the fall of 1892, one of us in conjunction with Dr. A. C. Brush of this city, performed some experiments on the production of malaria in pigeons, by the subcutaneous injection of water residues prepared by passing a large quantity of the water through a Chamberlain filter, collecting the residue, washing it out of the filter with sterilized distilled water, allowing the coarser particles to settle, and injecting the remainder into the breast muscle of a series of pigeons. The blood of the birds was examined for the malarial plasmodium both before and after the injections. The results were presented to the Medical Society of the County of Kings, and were published in the *BROOKLYN MEDICAL JOURNAL* in January, 1893, page 45.

CHART I.

## TEMPERATURES BEFORE INOCULATION, SEPTEMBER.

Pigeon No.	14		15		16		17		18		19		20		Greatest Variation	*Av. Temp.	
	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.		A.M.	P.M.
1	107	106 $\frac{1}{2}$	106 $\frac{2}{5}$	106	107	107	107 $\frac{1}{5}$	106 $\frac{2}{5}$	105	107 $\frac{1}{5}$	107 $\frac{2}{5}$	107 $\frac{2}{5}$	106 $\frac{3}{5}$	106 $\frac{3}{5}$	2 $\frac{4}{5}$ °	106 $\frac{2}{5}$	106 $\frac{3}{5}$
2	106 $\frac{1}{5}$	106 $\frac{3}{5}$	107	106 $\frac{3}{5}$	106 $\frac{1}{5}$	107 $\frac{1}{5}$	107 $\frac{1}{5}$	105 $\frac{1}{5}$	104 $\frac{2}{5}$	108 $\frac{1}{5}$	108 $\frac{3}{5}$	107 $\frac{3}{5}$	104 $\frac{2}{5}$	104 $\frac{2}{5}$	4 $\frac{2}{5}$ °	106 $\frac{3}{5}$	106 $\frac{1}{5}$
3	106	106 $\frac{3}{5}$	108 $\frac{1}{5}$	106 $\frac{1}{5}$	106	105 $\frac{1}{5}$	107	105 $\frac{3}{5}$	105 $\frac{3}{5}$	107 $\frac{2}{5}$	107 $\frac{2}{5}$	107 $\frac{3}{5}$	106 $\frac{1}{5}$	106 $\frac{1}{5}$	2 $\frac{3}{5}$ °	106 $\frac{3}{5}$	106 $\frac{3}{5}$
4	105 $\frac{1}{5}$	104 $\frac{1}{5}$	104 $\frac{2}{5}$	105 $\frac{2}{5}$	105 $\frac{2}{5}$	105 $\frac{1}{5}$	105 $\frac{3}{5}$	105	104 $\frac{1}{5}$	107 $\frac{1}{5}$	107 $\frac{1}{5}$	107	106 $\frac{1}{5}$	106 $\frac{1}{5}$	2 $\frac{1}{5}$ °	105 $\frac{2}{5}$	105 $\frac{3}{5}$
5	107 $\frac{2}{5}$	107	107	106 $\frac{3}{5}$	106 $\frac{1}{5}$	105	106 $\frac{2}{5}$	104 $\frac{1}{5}$	105	105 $\frac{3}{5}$	108 $\frac{1}{5}$	108	108	108	4°	106 $\frac{1}{5}$	106 $\frac{2}{5}$
6	106	106 $\frac{1}{5}$	106 $\frac{1}{5}$	105	106	105	107	105	105 $\frac{1}{5}$	109 $\frac{1}{5}$	109	108 $\frac{3}{5}$	108 $\frac{1}{5}$	108 $\frac{1}{5}$	4 $\frac{1}{5}$ °	106 $\frac{1}{5}$	106 $\frac{2}{5}$
7	106 $\frac{3}{5}$	106	106	105 $\frac{2}{5}$	105 $\frac{3}{5}$	105 $\frac{1}{5}$	105 $\frac{3}{5}$	105 $\frac{3}{5}$	104	107 $\frac{1}{5}$	107 $\frac{2}{5}$	108	105 $\frac{1}{5}$	105 $\frac{1}{5}$	4°	105 $\frac{3}{5}$	106 $\frac{1}{5}$
8	106 $\frac{2}{5}$	107 $\frac{1}{5}$	106	106 $\frac{2}{5}$	104	105	104 $\frac{2}{5}$	105 $\frac{3}{5}$	107	107 $\frac{3}{5}$	107	107 $\frac{2}{5}$	106 $\frac{1}{5}$	106 $\frac{1}{5}$	3 $\frac{3}{5}$ °	106 $\frac{1}{5}$	106 $\frac{1}{5}$
9	106	106 $\frac{1}{5}$	106 $\frac{1}{5}$	106 $\frac{2}{5}$	106	107	106	105 $\frac{1}{5}$	105	106 $\frac{1}{5}$	108 $\frac{2}{5}$	108	106 $\frac{1}{5}$	106 $\frac{1}{5}$	3°	106 $\frac{3}{5}$	106 $\frac{5}{4}$
10	107	107 $\frac{2}{5}$	105 $\frac{3}{5}$	106 $\frac{1}{5}$	106 $\frac{3}{5}$	105	106 $\frac{2}{5}$	105 $\frac{1}{5}$	105 $\frac{1}{5}$	107 $\frac{2}{5}$	108	107 $\frac{3}{5}$	106	106	3°	106 $\frac{3}{5}$	106 $\frac{2}{5}$
11	107 $\frac{2}{5}$	108 $\frac{1}{5}$	107 $\frac{1}{5}$	108	107	104 $\frac{1}{5}$	105 $\frac{1}{5}$	106	104 $\frac{3}{5}$	106 $\frac{3}{5}$	108 $\frac{2}{5}$	108 $\frac{1}{5}$	107 $\frac{1}{5}$	107 $\frac{1}{5}$	3 $\frac{3}{5}$ °	106 $\frac{1}{5}$	107
12	106 $\frac{2}{5}$	106	107 $\frac{3}{5}$	106 $\frac{1}{5}$	105 $\frac{3}{5}$	107 $\frac{3}{5}$	107 $\frac{3}{5}$	106 $\frac{3}{5}$	106	107 $\frac{1}{5}$	108 $\frac{3}{5}$	108	106 $\frac{3}{5}$	106 $\frac{3}{5}$	3°	106 $\frac{3}{5}$	106 $\frac{1}{5}$

\*Thunder storm on night of 18th.

CHART III.

## TEMPERATURES AFTER INOCULATION, OCTOBER.

Pigeon No.	12		13		14		15		16		17		23		26		Av. Temp.	
	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.
1	106 $\frac{3}{5}$		106		106 $\frac{2}{5}$	108	106 $\frac{3}{5}$	107 $\frac{1}{5}$	106	107	106 $\frac{1}{5}$		106 $\frac{2}{5}$	107 $\frac{3}{5}$	107 $\frac{1}{5}$	108	106 $\frac{3}{5}$	107 $\frac{1}{5}$
2	105 $\frac{2}{5}$		106 $\frac{1}{5}$		106	107 $\frac{1}{4}$	106 $\frac{1}{5}$	108 $\frac{1}{5}$	107 $\frac{1}{5}$	107 $\frac{2}{5}$	105 $\frac{1}{5}$		107 $\frac{1}{5}$	107 $\frac{1}{5}$	107	108 $\frac{1}{5}$	106 $\frac{1}{5}$	107 $\frac{1}{5}$
3	106 $\frac{1}{5}$		104 $\frac{1}{5}$		105 $\frac{1}{5}$	107 $\frac{2}{5}$	105 $\frac{3}{5}$	107 $\frac{3}{5}$	105 $\frac{3}{5}$	106 $\frac{1}{5}$	105 $\frac{1}{5}$		106 $\frac{1}{5}$	107 $\frac{2}{5}$	106 $\frac{3}{5}$	107 $\frac{1}{5}$	105 $\frac{1}{5}$	107 $\frac{3}{5}$
4	106 $\frac{1}{5}$		105 $\frac{1}{5}$		105	108 $\frac{2}{5}$	107	108 $\frac{3}{5}$	107 $\frac{3}{5}$	108 $\frac{3}{5}$	106 $\frac{2}{5}$		105 $\frac{1}{5}$	107	106	107 $\frac{1}{5}$	106 $\frac{1}{5}$	108
5	107 $\frac{2}{5}$		107		107 $\frac{3}{5}$	108 $\frac{1}{5}$	106 $\frac{3}{5}$	107 $\frac{1}{5}$	107 $\frac{1}{5}$	108 $\frac{3}{5}$	106 $\frac{1}{5}$		107	108 $\frac{1}{5}$	108	108 $\frac{2}{5}$	107 $\frac{3}{5}$	108 $\frac{2}{5}$
6	108 $\frac{1}{5}$		108 $\frac{1}{5}$		108 $\frac{2}{5}$	108 $\frac{2}{5}$	106 $\frac{1}{5}$	108 $\frac{1}{5}$	108 $\frac{3}{5}$	109 $\frac{1}{5}$	107 $\frac{2}{5}$		107 $\frac{3}{5}$	109	108 $\frac{1}{5}$	107 $\frac{2}{5}$	108	108 $\frac{2}{5}$
7	105 $\frac{1}{5}$		105		106 $\frac{1}{5}$	106 $\frac{1}{5}$	107 $\frac{1}{5}$	108 $\frac{3}{5}$	106 $\frac{3}{5}$	107 $\frac{2}{5}$	106 $\frac{3}{5}$		107 $\frac{3}{5}$	108 $\frac{1}{5}$	106 $\frac{2}{5}$	107 $\frac{1}{5}$	106 $\frac{3}{5}$	107 $\frac{3}{5}$
8	106 $\frac{1}{5}$		106 $\frac{2}{5}$		107	107 $\frac{2}{5}$	106 $\frac{1}{5}$	108 $\frac{1}{5}$	106 $\frac{3}{5}$	108 $\frac{3}{5}$	107		107 $\frac{1}{5}$	106 $\frac{1}{5}$	105 $\frac{3}{5}$	106 $\frac{1}{5}$	106 $\frac{3}{5}$	107 $\frac{2}{5}$
9	106 $\frac{1}{5}$		106 $\frac{3}{5}$		108 $\frac{1}{5}$	108	107 $\frac{1}{5}$	108	107 $\frac{1}{5}$	108 $\frac{1}{5}$	106 $\frac{2}{5}$		108	108 $\frac{2}{5}$	107 $\frac{2}{5}$	107 $\frac{1}{5}$	107 $\frac{2}{5}$	108 $\frac{1}{5}$
10	Escaped.																	
11	107 $\frac{1}{5}$		107 $\frac{2}{5}$		108	110	108 $\frac{2}{5}$	109	108 $\frac{1}{5}$	109 $\frac{3}{5}$	107 $\frac{1}{5}$		107 $\frac{1}{5}$	109 $\frac{2}{5}$	108	110 $\frac{1}{5}$	107 $\frac{1}{5}$	109 $\frac{3}{5}$
12	109 $\frac{3}{5}$		107 $\frac{3}{5}$		106 $\frac{3}{5}$	107 $\frac{1}{5}$	106 $\frac{1}{5}$	107 $\frac{2}{5}$	107 $\frac{3}{5}$	108 $\frac{2}{5}$	108		106 $\frac{1}{5}$	107 $\frac{2}{5}$	107 $\frac{1}{5}$	107	107	107 $\frac{2}{5}$

These results showed that while the blood of the birds appeared to be normal before the injections, after the injections the blood of those that had received the water residues contained the characteristic Laveran plasmodium. The blood of the control birds did not show these organisms, and Dr. Brush, who was ignorant of which were the control pigeons, was able to differentiate them, except in one bird, in which he failed to find the plasmodium, although it had received the same amount of residue as the rest. Although the temperatures were not taken as regularly as they should have been, for lack of time, there appeared to be an elevation of temperature on the fourth day after the injections, and the birds showed that they were not well. The fifth day they seemed better, and on the sixth they appeared sick. The temperature observations made during that series of experiments were too few to be of any scientific value. After waiting some years in the hope that some one would repeat the experiments, the authors of this paper took up the repetition of the work with the intention of keeping a careful record of the temperatures of the birds, both before and after the

injections. Incidentally they had the rare opportunity to observe the effect of an approaching rain storm, accompanied by marked electrical disturbance, upon the temperature of these pigeons.

On the 9th of September, 1896, we obtained twelve healthy young pigeons. They were placed in six light, airy cages, putting a pair in each cage. Everything was done to make their surroundings hygienic and comfortable. After five days, we began on the 14th to take their morning and evening temperatures, to obtain the normal temperature of each bird. It was found that the range of temperature was considerably higher in these pigeons than in those under observation in 1892, and there was variation in the same bird. With the exception of one marked disturbance, referred to below, the greatest variation in temperature in the same bird was about one degree. From the table (see Chart I) it will be seen the average temperature for the seven days was between 106° and 107° F. except in one bird, in which it was 105 2-5° F. For the first four days the temperature was rather regular. On the fifth day a marked rise in tempera-

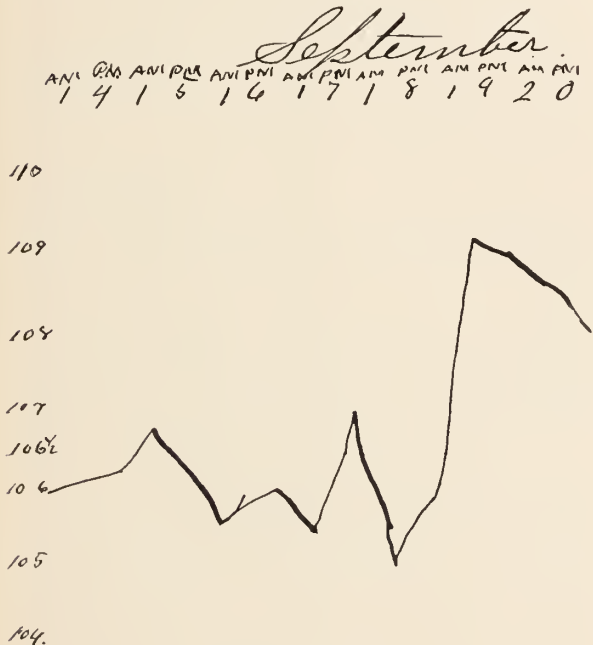


ture took place between the morning and evening, of from  $2\frac{1}{2}^{\circ}$  to  $4^{\circ}$  F. (See Charts I and II.)

It was difficult to account for this fluctuation of temperature, as nothing had occurred during the day to excite or worry them. During the night, however, the explanation came in the form of a heavy shower attended by considerable thunder and lightning. It will be seen by the record of the temperatures that the disturbance lasted all the next day, and in birds 5 and 6 it lasted until the morning of the following day. The disturbance lasted 48 hours in some of the birds, while in others it lasted but 24. It will be observed that in some of them the temperature had fallen in the morning of that day, while in others it had begun to rise, i.e., the disturbance began to be felt 18 hours before the storm.

It will be seen that the rise in temperature during that day was from  $2\frac{1}{2}^{\circ}$  to  $3\frac{1}{2}^{\circ}$ , while in bird No. 2 it was  $4\frac{1}{2}^{\circ}$  F. Whether this rise in temperature of birds before a storm is general, we have not been able to find out. We have not been

CHART II.

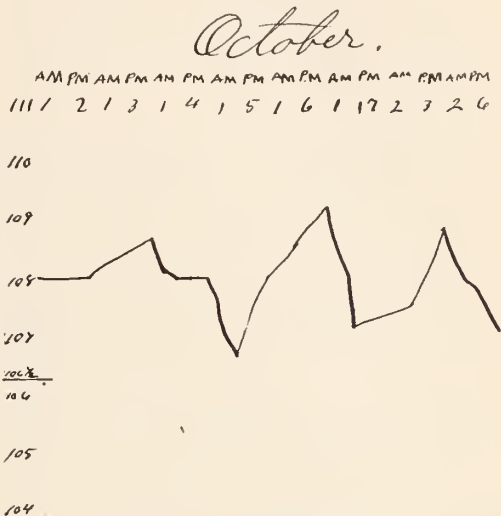


*Bird 6.*  
*Before Inoculation*

able to find that any similar observations upon this subject have been published. If this observation is confirmed by future experiments, it throws a new light upon what has been called the instinct

of birds in predicting a storm. It should be said that the pigeons were restless during the afternoon, while the temperature was rising, and cooed very much. This agrees with the evident uneasiness observed in many other birds before a storm.

CHART IV.



*Bird 6. After inoculation.*

as for example in quails, prairie chickens, turtle doves, stork, and in domestic fowls. It is suggestive of a line of inquiry in regard to the well known effect of storms upon the human subject in certain diseases. It is a well known fact that the temperature of birds is more easily disturbed than that of the human subject, and the fluctuations would be expected to be greater in them than in man. It is probably this sensitiveness to disturbances in temperature that enables birds to feel the approach of atmospheric changes sooner than mammals. For the same reason, persons who are ill, being more sensitive to changes of temperature, or with already disturbed temperature, are more easily affected by atmospheric disturbances than the healthy. It is extremely probable that the above noted disturbances due to an approaching storm are not all due to a fluctuation of temperature, but to an unexplained disturbance in the sympathetic nervous system, or, possibly, the circulation as well. In birds, however, we can easily understand that if this observation be confirmed, a rise of  $3^{\circ}$  in temperature might account for all the feelings of impending danger shown by them.

After the temperatures had been watched for the week, as above mentioned, the birds were allowed to remain about two weeks longer, and then on the 11th of October they were considered ready for the experiment. Birds Nos. 1, 2, 3, 5,

7, 8, 9, 10, 11 were given an ordinary hypodermic syringe-ful of the residues of Brooklyn water, prepared as above described. No effort was made to determine how much solid matter was injected, but all the birds received the same amount.

An examination of the blood of the birds had shown no malarial plasmodia. No change occurred until the 15th, when birds 1, 2, 8 and 11 seemed sick and ate sparingly.

On the 16th, the blood of 8 and 11 were examined microscopically and were found to contain a few pigmented and granular bodies, and a few infected blood corpuscles. On the 17th and 19th, the same birds were inoculated again. The birds that were injected all continued to droop, but no particular change was observed in their actions, until the 23d, when birds 1, 2, 5, 8 and 11 seemed very ill. They refused to eat and some of them lay on their sides on the bottom of the cage. The only bird that showed a marked elevation in temperature was bird 11, whose morning and evening temperature was  $110\ 1\text{--}5^{\circ}$  F. and  $110^{\circ}$  F. (See Charts III and IV.) On the 24th and 25th they seemed to brighten up, although they ate but sparingly. On the 26th they again became ill, and bird 8 had such a severe paroxysm that it seemed it would die. The temperature of this bird was not elevated on this day. All the birds that were inoculated lost flesh quite rapidly, but none of them developed an abscess at the point of the injection. They also became markedly anaemic. They showed signs of more or less disturbance of health for about a week, after which they began to gain flesh and to regain their usual health and activity. On October 30th the blood was again examined and birds 1, 2, 8 and 11 showed free plasmodia and some infected blood corpuscles. Bird 3 showed no characteristic malarial organisms, but a large number of zooglear masses of micrococci, the nature of which were not determined. This bird was very anaemic and had lost flesh very rapidly. After a few days the birds began to improve in appearance, and gain in flesh. An examination of the blood of the pigeons on the 12th of November, or about three weeks after the last injection with water residue, showed an almost entire disappearance of organisms. The organism above mentioned as having been found in the blood of bird No. 3 had disappeared. By November 15, all signs of disturbed health, as well as the organisms in their blood, had disappeared.

Lavaran and others have shown that pigeons

are susceptible of contracting malaria. This experiment as well as the earlier one, seems to show that pigeons may be used to demonstrate the presence or absence of malarial organisms, or their antecedents, in a drinking water. Although a troublesome test, it might be added to the methods of water analysis. The authors had hoped to find time to repeat these observations upon the effect of storms on the temperature of pigeons and extend it to other animals and to the human subject. This is our apology for withholding these observations from publication until this time. It is still our purpose to continue our observations upon the subject.

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In the *Laryngoscope* for July, 1904, Dr. W. S. Bryant presents an elaborate classification of the symptom *tinnitus*. He says: In a very large proportion of cases of tinnitus the sound-conducting mechanism or middle-ear is at fault and in the majority it is wholly to blame. Errors in conduction require treatment more than any other defect in the often complex condition which gives rise to tinnitus.

In myringal tinnitus the treatment is directed to allaying congestion and acute inflammation by removing any irritating substances, by improving the ventilation through the tube, by counter-irritation of the nasopharynx, external meatus and the region anterior to the tragus.

Tubal tinnitus is the most common variety of all. This is the case on account of the influence which nasopharyngeal conditions have on the Eustachian tube, owing to the continuation of the mucous membrane from one to the other and the intimate relations of their nerves and blood supplies. Local treatment of the nasopharynx is indicated in all pathological conditions of the tube, and where the changes in the nasopharynx are marked their correction is of first importance. The tinnitus is apt to be increased in bed, especially in the morning, which is due to the increased swelling of the mucous membrane, and because stasis and engorgement of the turbinates are common at that time; therefore sleeping with the head high is indicated in these cases. In the chronic conditions massage behind the angle of the jaw applied with the finger or vibrator is very useful. Tubal tinnitus depends on pathological conditions in the nose, most of which are due to the gouty conditions. Second only to these in importance are nasal obstructions which are amenable to local treatment. Tinnitus can sometimes be cured by stopping mouth-breathing alone.



## THE MEDICAL SOCIETY OF THE COUNTY OF KINGS.

STATED MEETING, SEPTEMBER 20, 1904.

The President, J. E. SHEPPARD, M.D., in the Chair.

The meeting was called to order, and the minutes of the previous meeting read and approved. There were about 75 members present.

### REPORT OF COUNCIL.

The Council reported favorably upon the applications for membership of the following:

O. M. Dewing, P. & S., 1887.  
A. J. Capron, Albany Med. Coll., 1894.  
C. S. Cochrane, L. I. C. H., 1900.  
T. H. Dexter, L. I. C. H., 1901.  
W. B. Brader, Univ. Penn., 1885.

### ELECTION OF MEMBERS.

The following having been duly proposed and accepted by the Council was declared elected to active membership:

Eudora Pierce, Woman's Med. Col., 1901.

### APPLICATIONS FOR MEMBERSHIP.

Applications have been received from the following:

E. S. Morton, P. & S., 1894, 194 Keap Street. Proposed by Nathaniel Matson; seconded by Ezra Wilson.

W. B. Rosecrans, Albany Med. Co., 1901, 1428 Greene Avenue. Proposed by P. H. Moak; seconded by Wm. S. Hubbard.

### DECEASED MEMBERS.

The President announced the death of Dr. John L. J. Gormly, L. I. C. H., 1897, member from 1900 to 1904, who died Sept. 6, 1904.

### SCIENTIFIC PROGRAM.

1. Paper: A Brief Report of Eight Cases of Cerebro-Spinal Fever, with special reference to their treatment with Ergot. By Dr. Carroll Chase.

Discussed by Drs. Browning, Ager and Brush. Closed by Dr. Chase.

2. Paper: Notes on the Treatment of Cardiac Insufficiency: with Report of a Case of Acute Myocarditis. By Dr. Edward E. Cornwall.

Discussed by Drs. Webster and Shattuck. Closed by Dr. Cornwall.

3. Paper: Some Points in the Diagnosis and Treatment of Pneumonia. By Dr. John R. Stivers. Discussed by Drs. Belcher, Fairbairn and Bartley.

### EXECUTIVE SESSION.

Dr. Browning made a motion that the Historical Committee be requested to provide an index of the papers read before the Society during the periods when the Society did not publish its transactions. Seconded and carried.

Adjourned.

WM. S. HUBBARD,  
Secretary.

## THE MEDICAL SOCIETY OF THE COUNTY OF KINGS.

STATED MEETING, JUNE 21, 1904.

The President, J. E. SHEPPARD, M.D., in the Chair.

PAPER: A METHOD OF DISTINGUISHING PROGRESSIVE CEREBRAL HEMORRHAGE.

BY DR. WILLIAM BROWNING.

### Discussion.

DR. C. F. BARBER: I regret I only heard the latter portion of the paper. I somewhat mistook the title of the paper and considered it more under the heading of delayed hemorrhage than what I have heard.

Dr. Browning has mentioned a method of distinguishing these progressive hemorrhages we sometimes see, and it would be useless for me to go over that portion of the paper. I will simply speak for a few minutes about the surgical end that we sometimes get hold of.

There are a large number of cases of injury to the head where, upon first observation, there seems to be little or no damage done. These cases, if they are watched closely, after some time develop some of the symptoms, especially restlessness, which Dr. Browning referred to. This condition of restlessness will be manifested sometimes by simply moving the extremities, such as the arms or legs, or violently throwing them around. Sometimes it manifests itself in rapid movements of the head from side to side—not always rapidly—sometimes I have seen them assume not an opisthotonus, but turning the head backward and keeping it back for a time.

If the fracture is compound and on the vault of the cranium or on the sides, then we know exactly what to do, and we will do it whether these symptoms make themselves apparent or not. Sometimes the fracture is not compound, and then, of course, we are justified in making ex-

ploratory incisions and trying to find this condition. I know of one instance of a woman who was brought into the Coney Island Emergency Hospital. She was injured by a trolley car running into a carriage in which some ladies and gentlemen were riding. This woman was thrown quite a distance. She regained her feet, walked to a telegraph pole nearby and simply complained of headache. She walked from there into a house. The ambulance reached there as quickly as possible. Two of the other lady occupants of the carriage were picked up and carried into the house and afterward placed in the ambulance. They were considered seriously hurt. This lady, 27 years old, sat on the seat with the ambulance surgeon back to the hospital. It was thought at the time her injury was nothing but a scalp wound. The wound was dressed and she walked into the ward in the hospital.

Toward evening next day she began to get restless, moving about in the bed. That restlessness increased, so that anodynes had to be given to her that night. She was seen on the following day, and I advised that Dr. Browning see her. The case was not quite clear to my mind, and in this instance when I saw her she was becoming comatose. There was on the face of it no appearance of a fracture of the skull. You could not feel a fracture. You could not detect a fracture by manipulating the scalp in any way. Dr. Browning saw her and advised immediate operation. Of course, she had this injury to the scalp which had been sewed up. That was enlarged, and we found commencing at the top of this wound a slight fissure—I might say a tracing. It ran into a marked fracture, which extended from the occipital bone way around into the frontal bone, making a fracture about ten inches long. We removed the entire portion of that and to a width of about two inches, and just over the ear there was a clot, which it was necessary at the time of operation to curette. We were unable to control the hemorrhage without packing. That woman is alive to-day. The accident occurred two years ago.

The marked restlessness was very evident the day following the injury. The other symptoms, as you see, did not indicate anything very grave.

Another case which occurred recently of progressive hemorrhage was in an Italian who was thrown on a scenic railway affair. That man came into the hospital and was perfectly quiet, but after a while began to develop a restless condition. That increased, so that it took two men to hold him in bed. We cut down on a slight

scalp wound and found a fracture. After removing the depressed portions of bone he became perfectly quiet and has been well since.

These cases are simply illustrations of the point the doctor has made. The symptoms come on sometimes days after an accident. It is not uncommon where we have these conditions arising to see these symptoms come on gradually. If you are awake to it and watching, you will see it develop. They go from bad to worse and die. If they are taken in hand at once and operated on, as far as my personal experience goes, they all get well. I do not mean, of course, where the hemorrhage is into the cerebral tissue, but extradural, and you can get at it and remove it, and in every instance they have all resulted in a satisfactory manner.

Sometimes the hemorrhage is quite troublesome after you have located it. There is a branch from the anterior meningeal which runs up through the dura, which is quite troublesome often and it is occasionally impossible to get at it. In these instances I take a strong hemostat and clamp the bone in that direction. The clamp will stay on for two or three days and control the hemorrhage.

The important point in the matter would be to urge immediate operation where these symptoms occur. Where they are localized I say go right in.

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## THE BROOKLYN SURGICAL SOCIETY.

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REGULAR MEETING, JUNE 7, 1904.

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The President, W. F. CAMPBELL, M.D., in the Chair.

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### PHLEP'S CLUBFOOT OPERATION IN A HAEMOPHILIAC.

DR. B. B. MOSHER reported the case of a boy 10 years old, white, referred to him by Dr. Herrington, of Waynesboro, Ga., suffering from marked double equino varus. He was walking on a large calloused bursa underneath the outer malleolus. Nothing unusual in his appearance or history. The operation of forcible correction was undertaken, but the rigidity was so marked that the Phelps' open operation for clubfoot was added. The hemorrhage was rather free, but only an oozing. The usual dressing was applied and the



patient put to bed with the feet extremely elevated. During the night following the operation the nurse reported that the casts were more moist and bloody than usual in these cases, but after examination it was decided to wait further developments before changing the dressings. During the second night the hemorrhage increased and the patient showed marked signs of loss of blood. Dr. Callendar, who assisted at the operation and to whose skill and care in the after-treatment the boy owes his life, reached the patient, had windowed the plaster paris casts and redressed the wound; but that failed to control the hemorrhage. The patient was *in extremis* from loss of blood. The doctor's judgment, in which the speaker concurred, was to use the tourniquet until the bleeding stopped permanently, realizing we had a bleeder to deal with. The boy was in such a marked collapse that the bleeding was thus easily controlled. He revived under stimulation and saline injections, but as he became stronger and his pulse was discoverable the tourniquet had to be tightened to prevent this capillary bleeding.

For the next two weeks every known local haemostatic was tried, the most effectual being the actual cautery. Internally was administered the various remedies suggested by the several surgeons who so kindly assisted in this case. The speaker was uncertain as to which remedy, if any, gave most assistance; but no local or internal means made it possible to entirely abandon the tourniquet for about two weeks, as it was necessary to keep the toes nearly black continually in order to control this oozing of blood. As a result there were several superficial sloughs, and one involving the entire little toe necessitating amputation, which was done with the cautery knife. Considerable persistent bleeding followed this, but finally ceased. The operation wound healed without infection in about the usual time when the Schede clot is absent. The final result was very satisfactory. It was learned subsequently that he was known as a bleeder.

#### RUPTURE OF THE GALL BLADDER COMPLICATING CHOLECYSTITIS.

DR. B. B. MOSHER reported the case of a woman 40 years old, first seen May 7. She had had similar attack two years ago, also two months ago. Both attacks were followed by apparent complete recovery. Present attack two weeks, been vomiting constantly for one week, no pain

skin dry and hot, decidedly jaundiced, temperature 104, pulse 120, urine scanty, very thick and dark in color, bowels constipated, patient rather fleshy. No result from any physical examination; unable to map out gall bladder.

*Diagnosis:* Cholecystitis with gall stones, complicated by malaria, as shown by blood examination. Treatment; diet, calomel, podophyllum, quinine, etc. She slowly recovered from her desperate condition until at the end of two weeks after first seen, four weeks after beginning of attack, she had a normal temperature and pulse, took nourishment in large quantities with no distress, bowels regular, felt very well, jaundice disappearing, impossible to keep her quiet as she was feeling so well. On May 20, after being out of bed for a while, she was seized with sudden severe pain in right iliac region, temperature still normal, pulse regular and slow. There was first distention low down in the abdomen gradually increasing upward, absolute obstipation and no nausea; able to take nourishment. At the end of twenty-four hours' exploratory operation advised but refused. At the end of forty-eight hours from beginning of pain patient began to vomit with fecal odor; subnormal temperature, pulse 80. Patient realized her condition, now demanded operation for the little chance it might offer. So in this desperate condition she was removed to the Skene Sanitarium and the exploratory laparotomy undertaken. The abdomen was very much distended, no tumefaction could be made out, even under the anesthetic. Incision was made above the umbilicus at the outer edge of the right rectus muscle, and when the peritoneum was incised fully a gallon of bile-stained fluid escaped. The intestines had a yellowish appearance. The gall bladder region was readily reached and this hardened mass felt about three inches from the under border of the liver in the gall duct. The gall bladder was collapsed and had a slit in it about one inch long. The hardened mass in the ducts was carefully worked back and out through this slit in the gall bladder. The region of the appendix was carefully examined and found normal. There was no evidence of obstruction anywhere along the intestinal canal. The patient was in a desperate condition, so the gall bladder was packed around and a drain carefully led out from it. The wound rapidly closed, the operation having taken fifteen minutes. The patient survived the operation thirty-six hours. The operation did not seem to hasten her death, but very materially relieved the distressed breathing from the overdistention.

The interesting points in this case are:

1st. The rather favorable progress for two weeks;

2d. The pain not located in the hypochondriac region, but in the right iliac; that there was no temperature; and that the pulse held its character so well even though we expect a slow pulse in jaundiced conditions; and that

3d. There was no vomiting until at the end of forty-eight hours following the onset of the pain, and the distension began very low down and so gradually increased upwards;

4th. As there was no obstruction the intestinal paresis must have been due to the peculiar effect produced by the free fluid from the gall bladder, which seemed to have little or no effect on the heat centres.

#### GASTRO-ENTEROSTOMY.

DR. R. W. WESTBROOK reported two cases of gastro-enterostomy, and said he wished to emphasize two points: First, that the method of election should be the posterior operation of Von Hacker; and second, the important anatomical point should be borne in mind that the beginning of the jejunum should be brought down practically below the duodenum. It lies behind the posterior border of the stomach in such a manner, that by the posterior method a fistula can be artificially formed between the greater curvature of the stomach and the jejunum, so that the curvature is helpful, and that there is not likely to be the formation of the vicious circle produced by fluid and stomach contents making their way into the duodenal site of the loop. The fact is there is no loop at all formed in this anastomosis, because one simply tracks the back wall of the stomach on to the convex free border of the jejunum, and the matter of loop is entirely avoided. The loop, of course, in the anterior operation has to be made and often gives rise to a good deal of trouble; so he thought that the Murphy button is a very quick and good way, in the hands of the average surgeon at least, to make that anastomosis, and that it has marked advantages. If not rightly used there is great harm from it. In the hands of Murphy the results are very good indeed.

In the two cases reported, the anastomosis was made posteriorly and close to the origin of the jejunum, but not quite as close as he thinks it ought to be made. It ought to be made two to four inches from the origin of the jejunum. It is easy to find that point, because when one lifts up

the stomach and the meso-colon it is right at hand, commencing at the ligament of Treitz, the ligament of the jejunum, so that anastomosis can be readily made.

With the Murphy button one may feed the patient immediately after operation. In both these patients starvation was present, and it was a great help to be able to feel pretty positively that there was a firm anastomosis and that feeding could be commenced at once.

Another point he emphasized is that one should reinforce the Murphy button. In these cases he used sutures of black silk, and not only reinforced around the button itself, but also for an inch or two on each side of the stomach wall in such a manner that no possible kinking could be formed.

DR. T. B. SPENCE read a paper on A Study of Six Cases of Extra-Uterine Pregnancy, for which see BROOKLYN MEDICAL JOURNAL, this number.

#### Discussion.

DR. J. P. WARBASSE spoke on the subject of the temperature in these cases. He recently had been looking over the report of a hospital in New York, in which had been reported in detail a number of cases of ectopic gestation; and in commenting on this condition the hospital report calls attention to the fact that in two of the cases there was an elevation of temperature. They seemed to take the view that the thing to be expected was not an elevation of temperature, but rather a depression of temperature, as they say we should expect in hemorrhage. Dr. Spence's observations on the subject are more in line with the pathology and clinical facts than with the experience of the surgeons in this report.

The temperature in the presence of internal hemorrhage is dependent on three conditions in these cases. One is similar to the condition that produces temperature in a fracture, *i. e.*, the fibrin ferment absorption. Another condition that produces temperature in these cases is an infective absorption, due to the fact that there is a laceration of tissue from the breaking open of the tube by the developing fœtus, and this ragged, wounded surface is particularly prone to absorb septic material present in an already infected tube. And third, he believed there was temperature due to the irritation of nerves—a purely mechanical condition—an excitement transmitted to the thermic centers by the mechanical irritation of nerve termini in the wound in the tube and in the peritoneum.



Two of these conditions, at least, are present in all cases and contribute to produce the temperature. It is most probable that ectopic gestation occurs only in a diseased tube, and therefore the third or septic cause of temperature is present. Because of the wide range or variation which may exist in all three of these conditions, the septic, the hemorrhagic and the nervous, we should expect a wide variation of temperature in these cases just as, as a matter of fact, we find.

DR. M. FIGUEIRA said that the question of temperature, divested of all physiological considerations and looked at from the point of clinical observation, is just this way: Here is a case generally with tubal or ovarian lesions of some kind. This will give rise to temperature, and often about the time they come under observation they have temperature. When the rupture takes place and they lose a large amount of blood in the peritoneal cavity, the temperature drops. He remembered a case he saw with Dr. Skene in which this was marked. Later, infection takes place and the temperature begins to rise; and if you do not interfere they will die as this woman did, as that was before the period of operative treatment of these cases. She died with a temperature of 104 or 105.

In regard to closing the peritoneum after these operations, he believed that if one gets the case right after the rupture, while the bleeding is going on and while the blood is fluid, closing the peritoneum is all right; but if time has elapsed it is a different thing. He had operated on a case in which rupture took place a month before, and in that case the blood was dark and grumous. He washed the peritoneal cavity and closed it, and soon he had to open and drain it through the vagina, and he believed that to be the common experience. If one gets the case before the temperature arises, he can close it and succeed; but after inflammatory symptoms have taken place in the clots, then the wisest way is to drain it.

In regard to the diagnosis of these cases, if one sees them early enough, and the symptoms are well marked, the diagnosis is easy. Take a woman who has been married for several years, has had no children and suffers from dysmenorrhea, and she misses a period and then is taken with a sudden pain and collapse and quick pulse. She may rally from that and the same symptoms again come on. On examination one finds a soft tumor in the cul-de-sac, the diagnosis is easy enough then; but we have seen cases in which women were regular every month, and the rup-

ture took place between the two periods, so that there we could not have missed the menstruation that we depend on to make a diagnosis; and many of the other symptoms are masked and absent; and the diagnosis is hard to make. He had opened the peritoneum in two cases for an appendicitis, and found in one case the bones of a foetus and in the other a placenta. That taught him a lesson, and he had ever since been on the lookout for ectopic pregnancy.

DR. C. H. GOODRICH said that the sentiments of the writer were his. He had seen two cases in the last year in which there was no omission of menstruation, as Dr. Figueira has mentioned, and in one case the diagnosis was in doubt until a posterior vaginal section was made and the blood clots evacuated. The tube was easily drawn down into the wound and ligated and removed.

He remembered one case some years ago, which he had mentioned before the Society, a case in which a woman gave a typical history of an attack of ruptured tube with a sharp pain coming on in the middle of the night, she jumped up to go across the floor and fainted and lay in collapse for two or three days, and the physician who was then attending her treated her by the expectant method. Her recovery was slow. Some six months later she engaged another physician for her confinement, which she expected, and Dr. Goodrich was called in to assist him deliver her. He found an arm presenting through a necrotic opening in the vaginal wall and entirely aside from the cervix. In that case a full term foetus was delivered and an exceedingly profuse hemorrhage resulted, which was controlled, however, by a tremendous quantity of packing of iodoform and plain gauze. She was redressed three days later, but at the redressing such a fierce hemorrhage ensued as to endanger life and a repacking was necessary. She died suddenly, perhaps from an embolus or collapse, some twenty-four hours later. He believes that was one of the cases mentioned by Dr. Spence as being treated by the expectant method. It seemed to him the sooner we open the abdomen in these cases, the better.

DR. WM. MADDREN said there are many varieties of extrauterine pregnancy. To answer one of the questions raised, every case of lithopaedion is a proof that these cases of extrauterine pregnancy have gone on for a long period of time without a fatal termination, and there are a good many of these on record.

Then speaking of the point of temperature, as Dr. Figueira has said, if we see a case early, during the period of hemorrhage, we have a subnormal temperature just about the same as we would in a typhoid hemorrhage, making due allowance for the febrile and afebrile conditions. It had been his misfortune in his early professional life to see somewhere near a dozen cases of fatal hemorrhage from extrauterine pregnancy. Autopsies were made in all these cases and the diagnosis verified.

He had an experience within three or four months that showed one variety. The patient was a stout German woman weighing over 200 pounds, very full blooded and in good health. She came to his office in the afternoon complaining of some pelvic trouble. He requested an examination, and she said she would come the next day, as she was not fit. He was summoned the next day to meet her doctor in consultation. He found that during the night she had had intense pain in the abdomen, the pain extending into her left leg. There was such a marked change from the picture of the day before to her condition at this time, that it was startling. From a florid woman, she had become almost like a plaster of paris woman in color. She had evidently bled internally. She fainted some thirteen times during the night, and the wonder was that she had not died from the internal hemorrhage. She was in a very low condition, and he decided to operate immediately and to operate there. We prepared the patient in haste, opened the abdomen, and as soon as the incision was made, dark clots and bright blood flowed out of the wound, and a large quantity of blood was lost. He estimated that there was at least five pints of blood lost outside the body. The condition was so bad that he did not attempt to wash out the clots. He found the ruptured tube—the foetus was not there. He ligated first one end of the tube, then the other. There was still bleeding, so he put a Staffordshire knot in the broad ligament across the base of the ruptured tube, and that controlled the hemorrhage. The abdomen was sewed up without any attempt to wash out or remove the clots. That patient made a very good recovery. There was not a single untoward symptom, except some suppuration under the breasts where he had used some saline injection.

He spoke of this case because it is an exceptional one, and it illustrates an extreme condition and complete recovery. That woman inside of three months was the picture of health. She had lost some fifteen to twenty-five pounds.

## PROGRESS IN SURGERY.

BY GEORGE R. FOWLER, M.D.

*Thiersch's Method of Skin-grafting.*—Chief Surgeon de C. Lauenstein of Hamburg (*Zentralblatt für Chirurgie*, XXXV., 1009-1012) discusses the various ways in which Thiersch's method of skin-grafting is employed. During the thirty years which have elapsed since Thiersch proposed his method of transplantation, the procedure has been universally employed and numerous modifications of the technic have been described. While Reverdin made the epidermal flaps relatively small and placed them upon unfreshened granulations, Thiersch demonstrated that every recent aseptic wound surface is suitable for transplantation; that it is better to freshen granulating surfaces before grafting, and that epidermal grafts of any size may be employed. The practical results of this revolution in the methods of skin-grafting did not leave any doubt as to the great benefit to be derived therefrom, and added greatly to the field of usefulness of the operation.

According to the author, no one pointed out the defects of Thiersch's technic until Brüning of Goldman's clinic presented a communication in which he called attention to them and recommended the open treatment of the wound. In discussing the defects of the technic referred to by Brüning, the author states that in a personal experience of many years the casting off, accidental removal or displacement of the flaps did not occur, and that the formation of a "moist chamber" was avoided without difficulty, when protective silk was used by applying the latter, not in continuous large pieces, but in strips with intervals between, or by using perforated silk, or by plating, which latter was employed successfully for a number of years. Plating consists in the application directly upon the graft of a piece of Credé's silver dressing material, a gauze covered with a thin plating of silver. It is an ideal dressing material for all granulating wound surfaces which have a tendency to cicatrization, for two reasons, namely, it does not become attached to the granulations, and it permits all secretion to pass through it. Over this dressing material (which must not be confounded with the same author's "silver-gauze") a number of layers of sterile gauze are placed, followed by the aseptic occlusion dressing of gauze and cotton, over which, if fixation of the



part be necessary, splints are applied which are not removed until the end of eight days, the fate of the transplanted flaps then being decided. Much movement prevents healing in addition to causing the "moist chamber." This and the displacement of the flap are disadvantages of the Lister method, due to insufficient fixation of the dressings.

In skin-grafting the following are to be avoided: (1) Defective asepsis; (2) casting off of flaps because of subsequent hemorrhage, and (3) insufficient supply of blood for the flaps.

In regard to the comparative value of "heteroplasty" and "autoplasty," the author is inclined to favor the latter, but states that in all the failures that he has seen, both in those cases in which the flap was taken from the patient and in those in which it was taken from another individual, the bad result was due to the fact that granulating surfaces and not fresh wounds formed the bed of the graft. The author now freshens wounds by removing the granulations with the sharp spoon. Lister's method of removing a superficial layer of the granulating surface with the razor was found to be imperfect. Although Thiersch's method of removing granulations is a great advantage over Reverdin's method of planting the grafts upon the granulations, the author thinks that the sharp spoon should be used with caution. Often, after removing the granular layer, particularly when defects of skin were present, nothing was left but a cicatricial base of connective tissue, often formed only of a fascial layer, and he states that he was sometimes afraid to employ the sharp spoon when an extensive granulating surface was to be grafted.

Recently the author employed skin-grafting in the case of a man whose arm, shoulder and clavicular region presented an extensive skin defect due to a subcutaneous plegmon. The patient was much weakened by long confinement to bed, and for this reason the granulations were not removed with the sharp spoon. The surface to be grafted was rubbed with sterile gauze until it became bloody. The grafts were taken from the man's thighs and the dressing applied in the manner already described, Crede's silver dressing being employed. When the first dressing was made, eight days later, it was found that all the grafts had united perfectly. The same method was employed, equally successfully, in the case of a large defect by De Schubert, an assistant of the author.

The author recommends this simple modification of Thiersch's method of skin-grafting.

## Brooklyn Medical Journal.

All communications, books for review, articles for publication, and exchanges should be addressed BROOKLYN MEDICAL JOURNAL, Library of the Medical Society of the County of Kings, 1313 Bedford Avenue, Borough of Brooklyn, New York.

Authors desiring Reprints of their papers should state on the galley proof the number of Reprints desired.

Each contributor of an Original Article will receive five copies of the JOURNAL containing his article, on application at the Library of the Society, 1313 Bedford Avenue.

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Alterations of the proof will be charged to authors at the rate of sixty cents an hour, this being the printers' charge to the JOURNAL.

*Entered at Brooklyn, N. Y., post office as second-class matter.*

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BROOKLYN-NEW YORK, OCTOBER, 1904.

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### FOREIGN MEDICAL MEN AT ST. LOUIS.

We extend a cordial greeting to the foreign medical men at present guests at St. Louis.

On the anniversary of an event of national importance, like that of the Louisiana Purchase, it is fitting that medical men should be well represented in meetings and conventions and that special courtesies be extended to the professional men from abroad.

They have crossed the seas at a distinct sacrifice of time and energy. It is to be expected that their visits will not have been without honor to themselves; it is certain that they will have been of advantage to the medical men on this side.

Their visits are a stimulation to activity in the field each man represents. Those who come here have manifested extraordinary devotion to the line of work each has chosen as his special field. Stimulation to work is always in order. Hence we congratulate the visitors and predict that all the meetings in which they take part will be distinguished by zeal and interest.

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### THE SALE OF CARBOLIC ACID GUARDED BY A BOARD OF HEALTH ORDINANCE.

In a recent editorial in the JOURNAL it was advocated that a greater stringency be exercised in the sale of carbolic acid, on account of the large number of persons who in temporary despondency seize upon this cheap and easily obtained substance as a means of suicide. We are therefore pleased to be able to note in another column the decision of Dr. Darlington in issuing a Board of Health ordinance requiring greater care on the part of druggists in dispensing this drug.

Notwithstanding a protest from representatives of the Kings County Pharmaceutical Society, the

ordinance will stand. We are unable to understand the attitude of the pharmacists toward this very necessary provision. According to a report, it is claimed that carbolic acid is so commonly used for cleansing purposes that the druggists have to sell it undiluted without a physician's order. Such an argument will receive no consideration, and Dr. Darlington will be abundantly justified when statistics shall have accumulated sufficiently to show the results of his order.

#### THE EXTINCTION OF TYPHOID FEVER.

A question frequently asked physicians is: "Why if typhoid fever is preventable, is it not prevented?" Typhoid fever is caused by the typhoid bacillus, and its extinction would put an end to the disease.

The absolute extinction of typhoid fever as a disease still seems far away. Yet no one doubts that the hygienic conditions are much better in all parts of the civilized world with each passing decade. Eliminating carelessness and oversight on the part of the attendants and granting that all conscientious physicians insist on thorough disinfection of excreta of their typhoid patients, the great difficulty in the way of preventing contagion lies in the fact that mild cases of the disease must daily go unrecognized, and in these cases excreta are disposed of without disinfection. Destruction or disinfection of all excreta of typhoid fever patients would doubtless stamp out this disease.

The disposal of the excreta of typhoid fever patients is without doubt the most important factor in its prevention. The only satisfactory stage in the life cycle of the typhoid organism at which it can be satisfactorily disposed of and destroyed is immediately on its appearance in the excreta of human beings. While within the intestinal canal it is impossible to satisfactorily destroy it, and after its escape into the soil it cannot be pursued by any satisfactory method.

The thing which lies within the scope of the physician to accomplish, and which we suppose is insisted upon by physicians throughout this country at least, is the thorough disinfection of all typhoid excreta. This results in a destruction of the excreta from nearly all but the mildest cases of typhoid fever; for all malignant cases come under the care of physicians, and it is known that the malignant cases are prone to produce the largest number of infections of a serious nature unless the excreta are disinfected. Pre-

ventive measures continuing for years should thus result in producing a milder form of the disease.

Perhaps in the present state of public opinion regarding public water supplies, this is the most that can be accomplished in the immediate future.

Public opinion does not as yet support the medical profession in its purpose to establish water supplies absolutely free from the typhoid organism. In some cases the expense of so doing would be so enormous as to be impracticable. In other cases it is possible that immunity could not be guaranteed even at the price of great expenditure. The physician, however, in every city, town and hamlet can and should see to it that every case of typhoid coming under his care is not a source of danger to others.

Prompt and complete disinfection of typhoid excreta is the most valuable factor being employed to limit the spread of typhoid fever at the present time.

#### MEDICAL NEWS.

EDITED BY CLARENCE REGINALD HYDE, M.D.

*It is earnestly hoped that all members of the profession possessing news concerning themselves or their friends, which would interest others, will communicate the same to the News Editor before the 9th of each month. Items for this department should be sent promptly to Clarence Reginald Hyde, M.D., 126 Joralemon Street.*

Dr. James Sears Waterman announces his removal to 676 St. Marks Avenue.

Dr. Theodore C. Guenther has removed to 431 Fiftieth Street.

Dr. George C. Straub has removed to 846 St. Johns Place.

Dr. Ellen Lysaght has removed to 1198 Bergen Street.

Dr. Charles P. Frischbier has removed to 865 Halsey Street.

Dr. Edwin G. Zabriskie has removed to 32 West 38th Street, Manhattan.

Dr. Carroll Chase has removed to 1045 Prospect Place.

Dr. Harold F. Jewett announces his removal to 1072 Bergen Street, near Nostrand Avenue.

Dr. Harold F. Jewett has been appointed Visiting Gynecologist and Obstetrician to the Bushwick Hospital.



Dr. Wm. F. Saybolt, of 122 Pennsylvania Avenue, has successfully passed the examination for entrance as Surgeon to the U. S. Navy.

Dr. Lucy Hall-Brown will spend the winter in Colorado.

It is with regret that the JOURNAL learns of the continued and serious illness of the father of Dr. Nathan T. Beers, Jr., of Bedford Avenue. The JOURNAL extends its best wishes for Mr. Beers' recovery.

Dr. Edward W. Wright, of 115 Montague Street, sailed about September first to revisit Moorfield's Eye Hospital, London, England.

Dr. Charles Dwight Napier, of 1273 Bedford Avenue, has been elected Commodore of the Sag Harbor Yacht Club.

Health Commissioner Darlington recently announced the following amendment to the Sanitary Code to be known as Section 66a: "No phenol, commonly known as carbolic acid, shall be sold at retail by any person in the City of New York, except on a prescription of a physician, when in a stronger solution than five per cent."

A regular meeting of the Berkshire District Medical Society was held at the Russell cottage, (formerly Dr. Paddock's), Pontoosuc Lake, Pittsfield, on August 25, 1904. Prof. J. H. Raymond, of Brooklyn, spoke on "Medical School Inspection," and Prof. F. E. West, of Brooklyn, made some remarks on "Cardiac Therapeutics."

Over \$1,200 worth of tickets have already been disposed of for the fair to be given at Harbor Hill, the home of Mrs. Clarence H. Mackay, on September 24th, for the benefit of the Nassau Hospital. The proceeds of the fair are to go toward the running expenses of the institution, and it is anticipated that enough money will be raised to entirely cover the cost of running the hospital for a year. The entire grounds at Harbor Hill and all the first floor of the beautiful mansion will be thrown open to visitors.

Dr. Henry Wallace, formerly of Clinton Street, this borough, and now practising in Glen Ridge, N. J., has been appointed assistant visiting physician to the Mountinside Hospital, Montclair; also laryngologist to the out-patient department of the same institution.

Dr. Elizabeth Jarrett, Medical Examiner of the Board of Education, in an interview, quoted from the New York *Herald* for September 10th, remarked that seven per cent. of the girl graduates of training schools in this city who qualify to

become teachers in the public schools are found to be suffering from practically incurable ailments as a result of too heavy a course of study. Said Dr. Jarrett: "One hundred and fifty of the six hundred girls who came to me to try to pass a physical examination this spring, had to be held over for re-examination this fall, because they were found to have some form of heart trouble, incipient kidney disease or anemia, brought on by the tax of these mental examinations, the State superintendent's, city superintendents, and the training school superintendents."

The many Red Cross nurses who volunteered to go with Dr. Anita McGee and give their services to the wounded Japanese are finding their lot by no means an easy one. While they are courteously treated by the Japanese, they have been assigned to minor responsible positions in the rear, caring only for the slightly wounded and convalescents. None are allowed at the front. This is due to the fact that they can speak neither Russian nor Japanese, and so are hampered in making their wants known. They cannot subsist on the Japanese rations nor can they endure the Japanese method of living. They need English foods, beds and customs, which the Japanese find hard to give them. The Japanese have been put to no little expense in catering to the wants of the Americans. It might also be said that if these reports are true, that the Japanese Red Cross nurses are unexcelled, and that to-day the medical department of the Japanese army is almost unsurpassed in its appointments and ability to take care of the wounded. The thought also arises of the advisability of the going of the Americans. In the light of present circumstances their appearance on the field is utterly useless.

Dr. John J. Gormley, one of the rising young physicians of this borough, died at his home, 430 Ocean Parkway, September 6th, of heart disease. Dr. Gormley was twenty-nine years of age, and was graduated from the Long Island College Hospital in 1897. He was a member of the County Society and a member of the visiting staff of St. Mary's Hospital. A widow, who was Miss Loretta V. Thells, and two children survive him.

From our exchange column are gleaned the following notes of interest to the profession:

Dr. Albert Vander Veer has resigned as dean of the Albany Medical College, an office he has held for many years. This action was rendered necessary by a recent law which prevents a regent of the University of the State of New York

acting as dean of a medical college. Dr. Samuel B. Ward has been chosen to fill the vacancy caused by Dr. Vander Veer's resignation.

Dr. Walter Lindley, of Los Angeles, the editor of the *Southern California Practitioner*, has been elected dean of the medical college of the University of Southern California, which is about to begin its 20th session. Dr. Lindley was one of the organizers of the school and is professor of gynecology in that institution.

The Mississippi Valley Medical Association will hold its thirteenth annual session at Cincinnati, Ohio, October 11, 12, 13, 1904, under the presidency of Dr. Hugh T. Patrick, of Chicago. The headquarters and meeting places will be at the Grand Hotel. The annual orations will be delivered by Dr. Wm. J. Mayo, of Rochester, Minn., in Surgery, and Dr. C. Travis Drennen, of Hot Springs, Ark., in Medicine. Request for places upon the programme or information in regard to the meeting can be had by addressing the Secretary, Dr. Henry Enos Tuley, Louisville, Ky., or the Assistant Secretary, Dr. S. C. Stanton, Masonic Temple, Chicago, Ill. The usual railroad rates will be in effect.

The American Neurological Association will hold its next annual meeting at the Planters' Hotel, St. Louis, Thursday, Friday and Saturday, September 15, 16 and 17, 1904, under the presidency of Dr. J. J. Putnam, of Boston. Daily sessions will be held from 9 A. M. to 1 P. M. The secretary is Dr. Frank R. Fry, of St. Louis. A general invitation to attend this meeting is extended to the medical profession.

The American Association of Obstetricians and Gynecologists will hold its seventeenth annual meeting at The Hotel Monticello, St. Louis, Tuesday, Wednesday, Thursday and Friday, September 13, 14, 15 and 16, 1904, under the presidency of Dr. Walter B. Dorsett, of St. Louis. Daily sessions will be held from 9 to 1.30; no afternoon or evening sessions will convene during this meeting, the purpose being to afford the members ample opportunity to visit the World's Fair. A cordial invitation is extended to the medical profession, resident and visiting in St. Louis and vicinity, to attend the several scientific sessions of the association.

The Fourth Pan-American Medical Congress, which was appointed to be held at Panama during the latter part of December of the present year, has been postponed until the first week in January, 1905, the dates being from the fourth to the seventh of that month.

## BOOK REVIEWS.

**MODERN SURGERY: GENERAL AND OPERATIVE.** By John Chambers Da Costa, M.D. *Fourth Edition, Rewritten and Enlarged.* Phil., N. Y. and London. W. B. Saunders & Co., 1903. 1099 pp., 10 pl. 8vo. Price: Cloth, \$5.00; Sheep or Half Morocco, \$6.00.

The success of Dr. Da Costa's Surgery is a well deserved tribute to the excellent and conscientious work of the Jefferson College professor. It is a book that is pre-eminently without a rival in the well repaid effort to provide a means whereby the student may gain a knowledge of the surgeon's art presented in clear and simple language, and in a pleasing and forceful, yet instructive manner. It is likewise a fount from which the busy surgeon may draw inspiration and be placed in a moment in touch with what is latest and best in his science and art. It is the work of a teacher who knows fully what the men on the benches want, of a scholar whose use of the language is such as to inspire confidence in what is presented as well as respect for the opinions expressed, and finally of a conscientious practitioner who is himself thoroughly equipped with that which is best adapted to the needs of modern surgical work, and who has the rare gift of bringing together all the trustworthy points bearing upon the condition under study and making these available for immediate application by his professional brethren.

In this, the fourth edition of the work, the reputation made by previous editions, has been well sustained, besides which many valuable additions have been made.

GEORGE RYERSON FOWLER.

**BEING DONE GOOD.** (Comments on the advance made by Medical Science during the past 5,500 years in the treatment of Rheumatism), by Edw. B. Lent. 345 pp. \$1.25. The Brooklyn Eagle Company. 1904.

Though not strictly a medical work, and in spite of its unscientific nature, this book has an interest for the physician from its truthful portrayal of the patient's side of life's story. The healing art suffers many a blow because of the failure of those who practice it to accomplish good in all cases. Mr. Lent here recounts his experience during four years with the various treatments of rheumatism. He is not cured at the end, and he has tried everything that everybody has recommended. He seems not to be discouraged, but has set out to make the most of it in a sensible way. Though maimed in body, he still retains an active mind and tells cheerfully and wittily the various "stents" which were tried on him in his search for health, and he seems to have enjoyed them. To the doctor this book is something of a mirror, and to the patients, many of whom should be urged to read it, the book will furnish a pretty just estimate and common sense view of the work of all those who attempt the treatment of disease.

Credit should be given the author for holding fast to his legalized practitioner, even though in his dire desperation he is lured into trying the various quack treatments. No advantage is gained so far as has been shown in the long run by following the luring "ads" of this or that sure cure. This too is wholesome reading for many patients. If this book were read by people as widely as the advertisements of wonderful cures the community at large would benefit much in health and pocket.

W. S. H.



# BROOKLYN MEDICAL JOURNAL

VOL. XVIII.

BROOKLYN-NEW YORK, NOVEMBER, 1904.

No. 11.

## ORIGINAL ARTICLES.

### SYMPTOMS OF NEPHRITIS.\*

BY LOUIS LEE NICHOLS, M.D.

There has for a long time existed some confusion in the minds of the medical profession respecting the divisions and subdivisions of nephritis. Each author makes his own classification either according to clinical symptoms, as acute and chronic, according to gross appearance, as large white, atrophied or waxy kidney, or according to the peculiar part of the structure affected, as parenchymatous, tubular, glomerular, diffuse or interstitial.

Dr. Delafield, after recognizing several varieties based on the part of the kidney affected, sums up the discussion with the following statement, which is at once both gruesome and amusing: "It is sometimes impossible to tell which of the varieties of chronic nephritis exists in a given patient. If, however, we correct our clinical diagnosis by post-mortem observations, we find that we may be mistaken about even the (apparently) most characteristic cases." This is a frank admission from a great authority, and if we are dependent upon post-mortem findings in order to know which variety of nephritis we are dealing with, most of us must be content with the simple division of acute and chronic.

There is a classification, however, which a "wayfaring man," though a doctor, may follow with a moderate degree of certainty. It is possible, by ordinary methods at the bedside to distinguish between acute and chronic forms of the disease and to differentiate the chronic parenchymatous from the chronic interstitial variety.

1st. *Acute diffuse nephritis*, resulting from a cold or the action of some toxic agent upon the kidneys, is usually sudden in its onset. If following a cold, dropsy may be the first symptom to attract attention and show itself within twenty-four hours after exposure. When the result of fevers the symptoms develop more slowly and a slight puffiness of the face or swelling of the

ankles may be the first evidence of trouble. There is often pain in the back, anorexia, nausea and vomiting, chilliness and at times slight fever. In young children with nephritis due to cold or scarlet fever elevation of temperature is common.

The *urinary changes* are early and marked. The first symptom may be suppression, but ordinarily the urine is scant in quantity, high colored or smoky, and contains albumen in abundance. The specific gravity is high, and a heavy deposit forms on standing. Under the microscope this may reveal hyaline, blood and tube casts, with the customary epithelium of the urinary tract.

*Anemia* may be early and marked in character. When dropsy becomes extensive there may be effusion into the plura and peritoneum and the lungs become oedematous.

A case of my own following a cold in a young man 22 years of age, developed so rapidly that when I first saw him there was complete suppression of the urine, marked dropsy extending even to the tissues of the back, effusion into the plura and oedema of the lungs with distressing dyspnoea.

With the aid of a valuable consultant we were unable to abate the symptoms in the slightest degree, so overwhelming were they from the outset.

Oedema of the glottis may occur in the acute form of the disease and prove a fatal complication.

The circulatory symptoms are of minor importance unless the acute passes into the chronic form. There is increased arterial tension and an accentuated aortic second sound. Dilatation of the heart may suddenly develop in the late stages of the disease. In the severe types uræmic symptoms often occur and cause sudden death. There is seldom any visual disturbance in the acute forms.

2d. *Chronic parenchymatous, chronic diffuse nephritis* or *large white kidney of Wilks*. As this variety of the disease is likely to follow the acute nephritis of cold, scarlet fever or pregnancy, the symptoms vary only in a modified way. But many of these cases develop insidiously after a period of failing health, and then the first symp-

\* Read at a meeting of the Long Island Medical Society, May 3, 1904.

toms noticed will be general loss of strength, pallor and puffiness of the eyelids and swelling of the feet. The urine will be diminished in quantity, of a dirty yellow or smoky color, and deposit a heavy sediment, in which may be found hyaline epithelial, granular, fatty and tube casts. Red-blood corpuscles may be present and albumen is usually abundant, amounting at times to one-half of the bulk of the urine. The specific gravity is high in the early, and low, in the later stages of the disease. The urea is always diminished. Dropsy is one of the most marked and obstinate symptoms. There is general anasarca, and sooner or later involvement of the serous sacs. The face has a peculiar waxy pallor distinctive of this variety of nephritis, and often becomes markedly oedematous. Uræmic symptoms are common in the advanced stages.

Arterial tension is usually increased, the vessels become thick and hard, and the heart enlarged with an accentuated aortic second sound.

Retinal changes may occur, but are less frequent than in the interstitial variety.

Vomiting and diarrhea are among the most troublesome gastro-intestinal symptoms, and are at times very obstinate. In one of my cases this was a frequent and uncontrollable complication, and when all remedies for relief had failed the condition would suddenly correct itself.

The ability to clearly distinguish at all times between large white, small white or contracted kidney, without the helpful aid of "post-mortem findings," as suggested by Dr. Delafield, is not given to the average practitioner. In fact, the large white kidney of chronic diffuse nephritis may later on develop into the contracted or interstitial variety, and this brings us to the consideration of our third division, or *Chronic Interstitial Nephritis*. The common synonyms are contracted kidney, granular kidney and cirrhosis of the kidney.

This form of the disease may be a sequence of large white kidney, may follow arterio-sclerosis or develop as an independent primary affection.

Doubtless many of the cases coming under this head go unrecognized. Others remain latent till some intercurrent disease leads to their discovery. In the beginning there may be a general failure of strength. The patient tires easily. This is accompanied by indigestion, anorexia, headaches, sleeplessness and frequent micturition.

Often *failure of vision* leads the patient to consult an oculist, when the true character of the disease is recognized for the first time.

*Polyuria* is often very marked, except in the

arterio-sclerotic forms, when the quantity of urine may be normal or diminished. In one case that I attended from eight to nine quarts of urine were voided daily for a period of three or four weeks, necessitating frequent micturition and resulting in one of the most aggravated cases of urethritis I have ever seen.

The specific gravity of the urine is low and the color pale. Albumen is present in small quantities or may be absent at times, especially in the early morning urine. The sediment is scanty and there may be a few hyaline and granular cases. In the late stages albumen may be considerably increased and the urine diminished.

The changes in the *circulatory system* are numerous. The arterial tension is increased, the vessel walls become thickened and hardened, and this is especially marked in the arterio-sclerotic variety. I have one case at present where the radial arteries are so hardened that it is practically impossible to find the pulse at the wrist. Hypertrophy of the left ventricle develops to overcome the resistance offered by the inelastic arteries. Gradual enlargement of the heart follows, and the apex is likely to be displaced downward and to the left. The apex sound may be duplicated. The aortic second sound is accentuated and a systolic murmur may occur at the apex. Finally, compensatory hypertrophy fails, the heart becomes rapidly dilated and gallop rhythm develops.

*Bronchitis* is a frequent complication in cold weather.

There are at times distressing attacks of *dyspnea*, especially at night, and still the patient may be about in the day time and attending to business.

Gastro-interstitial disturbances are common in the form of vomiting and diarrhea.

Headache is more or less constant and visual disturbances marked.

Oedema of the extremities is not of common occurrence in interstitial nephritis. Slight puffiness of the ankle may occur at times, but general dropsy is rare. If it does not arise it is doubtless the result of a failing hypertrophied heart. In that case sudden oedema of the glottis or lungs may develop and prove fatal.

One author mentions "a white frost of urea" which the sweat may deposit on the skin. I saw this in a marked degree in one of my cases, but it occurred at death, and was brown rather than white.

There are in some cases numbness and tingling of the fingers, and the so-called "dead finger" is not uncommon.



Eczema and intense itching of the skin and purpura often arise in course of the disease.

In this paper I have endeavored to emphasize the more common and distinctive features of acute and chronic nephritis as we see them in our daily practice, at the same time fully appreciating that there are many special symptoms arising in certain varieties of the disease which could not be brought out in a brief discussion of the subject.

#### RECAPITULATION.

*Acute nephritis* is characterized by a sudden onset; scant or suppressed urine, high specific gravity, smoky color, a marked sediment with more or less albumen; extensive oedema in the late stages, and running a short course with a tendency to recover.

*Chronic parenchymatous or diffuse nephritis* is characterized by a slow, insidious onset, diminished urine of varying specific gravity, *high* in the early, *low* in the later stages and a dirty yellow color; a heavy deposit, with hyaline, epithelial, granular and fatty casts; abundant albumen; diminished urea; a waxy complexion; increased arterial tension with cardiac hypertrophy; vomiting and diarrhea, and running a chronic course with a fatal termination.

*Chronic interstitial nephritis* is distinguished by a very slow and obscure onset; exacerbations; polyuria with low specific gravity, pale in color, little or no albumen, a slight sediment with a few hyaline and granular casts; hardening of the arteries; left ventricle hypertrophy; cystolic murmur; bronchitis; dyspnoea; gastric disturbances; retinal changes; slight oedemas; eczema; purpura; itching and numbness of fingers; and running a long, slow course, with tendency to improvement.

#### SHOULD THE NORMAL APPENDIX BE REMOVED WHEN THE ABDOMEN IS OPENED FOR OTHER REASONS?\*

BY O. A. GORDON, M.D.

Knowing that opinions of members of this Society differ as to the advisability of the removal of the normal appendix when the abdomen is opened for other reasons, I have decided to bring the subject before you for discussion.

If one considers the papers that have been written on the subject and the discussions, the first thought that presents itself is, how can surgeons of equal ability differ so widely in their conclu-

sions. One, who believes that the appendix should always be removed when the abdomen is opened, quotes from six hundred operations, and finds twenty-seven normal appendices, and gives it as his honest opinion that a large per cent. of the small number left would have been found abnormal if the pathologist had had an opportunity to examine them, and feels like making an apology for having left twenty-seven patients out of six hundred in possession of their appendices. While a surgeon of equal ability, but not so radical, quotes from as large a number and shows from two to four per cent. of appendices in an abnormal state.

Certainly one of these two conclusions must be wrong. Possibly the first may be too radical, and the latter too conservative. It seems to the writer that it is not possible in very many cases to decide, from a hasty examination, whether a structure is in a normal state or not, and, also, that the microscopical examination is not always to be trusted, as the necessary traumatism in the removal of the appendix may so change the structure that a wrong impression may be conveyed to the eye. In order to justify the more radical procedure, it ought to be shown that such examinations are not misleading. Of course, there are instances where the pathological conditions are so marked that there can be no question as to the indications. Such cases are not under consideration.

It also ought to be shown that where the appendix has been left behind, the patients return for its removal in a greater proportion of instances than those who have never been operated. In making inquiries of a large number of surgeons, the writer fails to find that such is the case. Personally, I have never known of such an instance. And while I do not claim that abdominal section acts as a prophylactic, I have never operated for appendicitis where the abdomen had been previously opened.

It is impossible to ascertain the increased mortality resulting from the removal of the normal appendix incident to other operative procedures, but I think no one would dispute that out of one hundred or five hundred such there would be a death rate due to such interference. If we grant there be even one death, are we justified in subjecting our patients to the additional risk? Some will tell us there is no risk, but such a claim is, in the writer's opinion, not well grounded, as the anesthetic must be prolonged anywhere from five to ten minutes, which is, to some patients, a decided risk; increased shock must also be taken

\* Read before the Brooklyn Gynecological Society, October 7, 1904.

into consideration, and search for the appendix, after removal of pus tubes or other structures that are infected, may carry infection on instruments or the hands of the operator to clean structures; also infection from the interior of the appendix may gain access to the clean peritoneum. There is, too, a slight risk that adhesions may form as a result of the added operation, and intestinal obstruction call for a secondary operation. While all of these accidents are remote, no one can reasonably claim that they are not to be considered.

Some surgeons claim that the appendix in the female is especially liable to trouble by reason of its intimate relation to the right tube and ovary. (As it is claimed that an additional blood supply is furnished through the vessels of the fold of peritoneum passing from the broad ligament to the meso-appendix—the appendiculo-ovarian ligament—or so-called Clado's ligament), and consequently should be removed whenever the tube and ovary of that side are taken away. Statistics show from three to four cases of appendicitis in man to one in woman, which should be reversed if it were true that the appendix in the female is more liable to trouble, circulatory or otherwise, through Clado's ligament.

Byron Robinson (<sup>1</sup>), Professor of Abdominal Surgery, Harvard Medical College, says: "That as a result of two hundred autopsies he finds that the so-called Clado's ligament is an irregular, inconstant structure not recognizable in adults.

Firth (<sup>2</sup>), in a discussion before the Leipzig Obstetrical Society, said that the so-called Clado's ligament instead of being constant was the exception.

Dr. J. M. Baldy (<sup>3</sup>), in considering over 100 abdominal operations where he left the appendix, says: "In no such case have I ever had to re-operate on account of the condition of the appendix. In none have I found symptoms remaining referable to that organ, and this in spite of the fact that in not a few of them inflammatory products had invaded the underlying coats of the peritoneum."

Dr. Vineberg (<sup>4</sup>) says: "My own practice is based on the principle never to remove a tissue unless its removal is indicated by disease. Whenever it is feasible in the performance of a laparotomy for other conditions than appendicitis, I search for the appendix for purposes of investigation, but do not excise it unless it shows some pathologic change.

Dr. J. H. Carstens (<sup>5</sup>) says: "As far as I am able to find out, not more than one patient in a

thousand that has had abdominal section is afterwards affected with appendicitis. It is estimated that 2 per cent. of the population have appendicitis. If you operate on one hundred and remove all those appendices, of which only one or two would ever have appendicitis, I know you will kill at least one or two, and I don't think that is good practice. I have been doing abdominal sections for many years and have only seen two cases that afterwards were afflicted with appendicitis, and I have had several thousand."

Dr. Robert T. Morris (<sup>6</sup>) opposes the removal of the normal appendix on three points: "1. Removal of the appendix delays the operation. 2. Adds a little to the danger. 3. And if the idea is taught by competent men, it will be carried out by those who will manage to get a death rate out of it."

He also says: "Leave the appendix alone until it is infected, and then lose no time in having it inspected. If we are to get the lowest possible death rate in any sort of surgical work, we must let the patient off with the least attack of surgery that is possible."

Dr. Howard A. Kelly (<sup>7</sup>), in two hundred operations for other conditions, only found it necessary to remove the appendix twenty-five times. He says: "My reasons for not removing the normal appendix are as follows: Its removal involves a slight additional risk, owing to the fact that, no matter how good the patient's condition may be at the time the appendix is removed, there is no guarantee that it will remain so until the end of the operation, and should a condition of shock ensue, the additional five minutes consumed in the removal of the appendix will lessen the chances of recovery."

Dr. Kelly, in 1902, wrote to eighty well-known surgeons in different parts of the United States as follows:

"When the abdomen is opened for other causes, and the perfectly normal appendix is easily accessible, is it your rule to remove it?"

To the eighty inquiries, seventy-four answers were received, of which twenty-six answered "yes," and forty-four "no."

#### CONCLUSIONS.

It is the writer's belief that, where the appendix is involved secondary to inflammatory disease of the uterine appendages it will be readily found by reason of contact adhesions, and the fact that it cannot in many cases be easily found is strong evidence that it is free from the inflammatory process, and an extended search for it after re-



moval of infected pelvic structures, where there is no evidence that it is diseased, is unjustifiable, as such search may carry infection.

There can be no doubt that the operation for removal of the normal appendix carries with it a death rate, and it seems to the writer that we are not justified in subjecting the patient to additional risk, however small.

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- (4) Vineberg—Medical Record, June 2, 1900.
- (5) Carstens—Journal Mich. State Med. Society, October, 1903.
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- (7) Kelly—Journal American Med. Association, October 25, 1902.

(The discussion of this paper will appear in December issue of the JOURNAL.)

#### A BRIEF REPORT OF EIGHT CASES OF CEREBRO-SPINAL FEVER, WITH SPECIAL REFERENCE TO THEIR TREATMENT WITH ERGOT.

BY CARROLL CHASE, M.D.,

Adjunct Attending Physician, Brooklyn Home for Consumptives.

These cases came under my observation, in private practice, during the past winter and spring in the epidemic then raging in this city, and are reported from the clinician's standpoint. For sake of brevity tabular form is used in stating the symptoms.

Cases IX and X do not properly belong in the table, because (in case IX) the meningitis was due to a head injury and had, I believe, nothing to do with the epidemic. Case X occurred during the epidemic in a section of the city where the disease was prevalent, and is a clear case of what Gower terms meningitophobia (<sup>1</sup>). It is of interest because of diagnosis.

Two or three other cases, very mild in character—the abortive form of the same disease—were met with, but are hardly worth reporting.

Regarding *cause* I have little to say. The occurrence of acute preceding rhinitis in every case, inclines me toward the theory of infection through the nasal sinuses. I remember having a severe coryza with considerable headache myself, that made me decidedly nervous for a day or so. The other interesting fact is that five of my eight cases occurred within one thousand feet of one another, and that there were other cases within the area. It is a fairly good neighborhood, and well away from the water front. No two cases were seen in any one family.

*Concerning diagnosis.*—The most consistent

symptoms were: High irregular temperature, severe headache and pain over the spine, retracted head, muscular rigidity, photophobia, and Kernig's sign (that of being unable to extend the leg while the thigh is at right angles to the body). Babinski's reaction was obtained in but one case, and was of but little value. Arthritis was fairly constant. Constipation was persistent, but the morphine given may have been at fault.

The only possible *preventive treatment* that I can suggest would be the heroic treatment of acute rhinitis during an epidemic. I doubt if it would be sufficient, but it might be worth trying. I had some personal experience.

In *actual treatment* the first consideration was to get the patient into a quiet and darkened room, and apply ice bags freely to the head and spine. He was disturbed as little as possible, especially in the severe cases, where the slightest irritation sometimes caused a convulsion. An easily assimilated liquid diet was adhered to. Water was given ad libitum. Rectal feeding became necessary in one case because of persistent projectile vomiting. No stomachic sedatives were employed for this symptom because the vomiting was central.

Early catharsis was induced in each case, and active cathartics were necessary throughout the course of the disease; partly, I suppose, to counteract the constipating effect of the morphine.

As a sedative and to relieve the terrific pain nothing compared with morphine, freely given, the best combined with atropine. Chloral and the bromides seemed of little use; and the coal tar preparations I was afraid to use after a depressing effect from small doses given in my first case. In convulsions chloroform inhalations were invaluable.

When stimulation became necessary alcohol was used cautiously, while a flagging heart was treated with spartein and digitalin.

Little attention was paid to epistaxis because I believe it helped to relieve the intense congestion. The arthritis, which was very troublesome in some cases, seemed best eased by cold applications.

For excessive fever, which in these cases several times foretold a convulsion, cool sponging, and if necessary, bathing, seemed fairly efficient at least temporarily. Neither blisters, cupping nor leeches were used, as I believe none would be worth while.

Now, regarding the *use of ergot* in the treatment of these cases. All authorities agree that ergot, except in poisonous doses, causes vaso-motor

DURATION OF ILLNESS	CASE No.	INITIALS, SEX AND RACE	AGE	INITIAL SYMPTOMS	ACUTE PRECEDING RHINITIS	MAXIMUM TEMPERATURE	TEMPERATURE COURSE	PULSE	PROJECTILE VOMITING	EPISTAXIS	ERUPTION	TÂCHE CÉRÉBRAL	KERNIG'S SIGN	BABINSKI'S REACTION	PATELLAR REFLEX
Mar. 13 / Apr. 19	I	I. S. Female. American.	4½	Severe occipital headache	Present	105.3	Very irregular. Subnormal after two weeks.	Rapid; not in proportion to temperature.	Moderate early.	Present Early.	Slight macular (petechial).	Obtainable.	Present.	Negative.	Exaggerated early then normal.
Mar. 15 / Mar. 16	II	S. O. S. Female. Negress.	6 mos.	Convulsion.	Present	107	Persistently high.	Too rapid to count.	Present.	None.	Marked macular (petechial). Body almost covered.	Not noted	Impossible to tell.	Negative.	Impossible to tell reaction.
Mar. 24 / Mar. 26	III	G. S. Male. American.	6	Convulsion.	Present	106.1	Persistently high.	About 170 until just before death; then slow.	Severe.	None.	Marked macular (petechial). Body almost covered.	Easily obtainable.	Impossible to tell.	Negative.	Impossible to tell reaction.
Apr. 13 / June 12	IV	C. C. Male. Hebrew.	11	Severe occipital headache	Present	104	Very irregular. Occasionally subnormal during convalescence.	Usually slow.	None.	Persistent; almost alarming.	Slight facial herpes.	Obtainable.	Present.	Negative.	Always diminished.
Apr. 21 / Aug. 18	V	E. C. E. Male. German.	22	Severe general headache	Present	107.2	Very irregular. Subnormal once during disease and occasionally during convalescence.	Always very rapid, except during collapse.	Moderate early.	Slight.	Slight macular (petechial). Marked facial herpes.	Easily obtainable.	Present.	Negative.	Varied greatly.
Apr. 21 / May 16	VI	G. D. W. Male. Negro.	8	Chill.	Present	103	Rather irregular. Never subnormal.	Not over 120.	None.	None.	None.	Not noted.	Present.	Negative.	Normal.
Apr. 29 / May 20	VII	F. K. Male. American.	12	Chill.	Present	102.4	Rather irregular. Never subnormal.	Not over 110.	None.	Moderate.	None.	Obtainable.	Present.	Negative.	Slightly exaggerated.
May 13 / July 6	VIII	F. B. Female. Negress.	13	Projectile vomiting.	Present	103.1	Very irregular. Subnormal during convalescence.	Rate varied greatly. Not with temperature.	Marked and persistent. First symptom	Moderate.	Facial herpes.	Not noted.	Present.	Obtained once.	Varied greatly.
Jan. 3 / Still under treatment	IX	M. B. Y. Female. American.	17	Occipital headache	None.	104.1	Irregular. Never subnormal.	Slow.	None.	None.	None.	Easily obtainable.	Not examined for.	Negative.	Normal.
May 25 / June 5	X	M. S. Female. American.	25	Nervous Chill.	None.	99	Never below 98.	Rapid.	Vomiting not projectile	None.	None.	Not noted.	Negative	Negative.	Normal.

contraction throughout the body (<sup>2</sup>), and many state that it lessens congestion of the spinal cord and perhaps of the brain. (<sup>3</sup>) Dr. Livingston, in his paper read before this Society in April, 1903, claims that it causes contraction of abnormally dilated blood vessels anywhere in the body. In articles on the treatment of cerebrospinal fever the reference to the drug usually reads about like this: "Ergot would seem theoretically to be of value, at least in the early stages, but in actual practice results have been at best but slightly satisfactory." (<sup>4</sup>) However, no one mentions the dosage.

I had been using ergot more freely of late than formerly, and with good results in varying conditions where the circulation was disturbed. In my reported case of traumatic meningitis (No. IX) I began to use it at the end of the first week,

without result. I increased the dose, and improvement started soon, and was slow but sure. My results in this case led me to use it in the epidemic form.

*Method of administration.*—Ergotin (Bonjean) was given internally in all cases except where hypodermic medication was necessary because of vomiting. In these cases Squibb's solid extract, dissolved in water, was used. The dosage I believe to be a most important point, and my theory is that the poor results previously reported from the use of ergot were due, at least in part, to insufficient amount given.

In Case I, I started with a moderate dose with no effect. Increasing the dose in this case also gave the desired result. In the other cases (except II and III) I used it freely without gradually increasing the dose.



PUPILS.	ARTH- RITIS.	ALBU- MEN- URIA.	CONSTI- PATION.	SENSORIUM	GENERAL SENSORY SYMPTOMS	GENERAL MOTOR SYMPTOMS	AFFECTIONS OF CRANIAL NERVES	TERMIN- ATION	GENERAL REMARKS
Dilated early. Then contracted.	Marked late.	Present	Marked.	Delirium moderate for several days. Faint recollection of illness.	Severe general headache and backache. General hyperesthesia niti- late in the illness. No anesthesia found.	Marked muscular rigidity, especially of lower limbs. Head much re- tracted. One con- vulsion. Third day.	Photophobia. In- ternal strabismus of right eye for two days. Phono- phobia. Moder- ately deaf for one month in both ears.	Perfect recovery.	Moderately severe case. Emaci- ation marked. Ergot given from fourth day.
Widely dilated.	None.	Urine not ex- amined	Present	?	Cried as if in intense pain. Apparently hyper- esthetic.	Repeated convul- sions. Marked re- traction of the head and general muscu- lar rigidity. Opisthotonos	Apparently photophobia.	Death in 30 hours	Fulminate case Cheynes-Stokes respiration before death. Little medicine given, except chloroform to relieve convulsions.
Widely di- lated. Then unequal.	None.	Urine not ex- amined	Present.	Delirium marked constantly.	Held head almost constantly. Appar- ently hyperesthetic	Repeated almost continuous con- vulsions. Trismus. Opisthotono- marked.	Photophobia. Phonophobia. Raising curtains or making slightest noise would cause a convulsion.	Death in 38 hours.	Fulminate case Cheynes-Stokes respiration before death. Chloro- form to relieve convulsions. Mor- phine and ergot hypodermically, with no result.
Dilated early.	Moder- ate, late.	Present	Moderate	Delirium moderate early. Faint recollection of illness.	Severe headache (occipital) and backache. Moder- ate hyperesthesia.	Moderate muscular rigidity. Moderate retraction of head	Photophobia. Slightly deaf for two weeks.	Perfect though slow recovery.	Moderately severe case. Emaci- ation moderate. Ergot given from second day.
Dilated early Occasionally irregularly dilated.	Moder- ate, early.	Present	Marked.	Delirium marked; occasionally maniacal. No recollection of illness.	Very severe head- ache (occipital and parietal) and back- ache. Marked hyperesthesia. Occasional anes- thesia; one day involving entire left side of body although face was not affected.	Marked muscular rigidity and re- traction of the head. Slight tris- mus. One convul- sion on the second day.	Disorders of smell. Imagined bad odors. Photo- phobia. Ptosis and external strabis- mus of right eye for four days. Totally deaf in one ear for six weeks, and in both ears for two weeks.	Perfect though very slow recovery.	Very severe case. Had been treating him for aortic stenosis for two months and had gotten his heart in fair shape. Went into collapse fourth day (afternoon). In morning temperature had been highest. Was pale with subnormal temperature and was pulseless. Gave nitroglycerine and spartein hypodermically, and he rallied. Ergot given from second day.
Slightly dilated.	None.	Not present	None.	No Delirium. Fair recollection of illness.	Severe general headache and pain in back of neck. No hyperesthesia nor anesthesia.	Head retracted.	Slight photophobia.	Perfect recovery.	Mild case. Ergot given from second day.
Varied greatly.	Slight, late.	Present	Moderate	Slight delirium. Slight recollection of illness.	Severe occipital headache and back- ache. Moderate hyperesthesia.	Head slightly re- tracted. Some general muscular rigidity.	Moderate photo- phobia. Slightly deaf for ten days.	Perfect recovery.	Mild case. Ergot given from second day.
Varied greatly.	Moder- ate, late.	Present	Moderate	Moderate delirium. No recollection of illness.	Severe frontal and occipital headache. Anesthesia of entire left arm for three days. Moder- ate hyperesthesia.	Head much re- tracted. General muscular rigidity.	Photophobia.	Perfect though slow recovery.	Moderately severe case. Had to give all medicine hypodermically, or by rectum during first week, because of persistent projectile vomiting. Ergot given from the start.
Widely dilated throughout.	None.	Not present	Marked.	Delirium marked. Occasionally violent. No recollection of parts of illness.	Very severe occi- pital and parietal headache and back- ache. Hyper- esthesia over the spine. No anesthesia.	Head retracted. General muscular rigidity moderate.	No sense of smell to present time. Photophobia. Com- plained of sounds seeming very loud.	Still has much head- ache. Has lost sense of smell.	Severe case. Due without doubt to fall on back of head. Could detect no fracture. I believe the epidemic had nothing to do with this case. Ergot given from seventh day.
Normal.	None.	Urine not ex- amined	Moderate	Delirium moderate. Assumed (?)	Severe headache (general) and backache. Hyper- esthesia (especially abdominal). No anesthesia—limbs "felt numb."	Head retracted. No other muscular rigidity.	Photophobia (?)	Perfect recovery.	Gower's "Meningitophobia." In a neighborhood with many severe cases. Very nervous and hysterical woman. Gave ergot without result. Bromides and chloral acted well.

In an adult the dose was on the average three grains of ergotin (equivalent to about thirty grains of ergot, <sup>(5)</sup> per hour, although double that amount was given on occasions. The extract was given in about similar doses hypodermically (three grains being practically equivalent to fifteen grains of ergot) although not so often. Children received proportionate doses. Although carefully watched for, no evidence of poisoning was seen. It should be stated that the drug was never given for long periods without intermissions.

The effect was usually seen in from twenty-four to forty-eight hours, and consisted in a gradual remission of all the symptoms, especially those due directly to intracranial and spinal congestion. The intense pain became more bearable, the re-

traction of the head less marked, hyperesthesia not as noticeable, the fever, still irregular, did not average as high, and in general the patient became more comfortable.

Two markedly noticeable features of these cases were absence of usual complications (pneumonia in particular) and absence of troublesome sequelæ. In no case was any lung consolidation or heart inflammation seen; and the recovery in each case was complete—no deafness, no impairment of vision, and almost best of all, none of the persistent severe headache that is so apt to make the lives of those who recover so unbearable.\*

\* Since the paper was written, the mother of Case V tells me that his disposition has changed, he having become very irritable and excitable, although previously showing neither of these traits. This is noted as an exception to the usual perfect recovery.

The beautiful results obtained with antitoxin in cases of diphtheria under treatment at the same time made me long for an equally efficient serum for cerebro-spinal fever. Were I prophesying, I would predict it.

Now, the question will be asked why were intraspinal injections not used. Two cases (Nos. II and III) were of the terrific fulminate variety, and I firmly believe no treatment on earth could have done anything for them except to palliate the suffering. I think they may be fairly left out of account when considering treatment. All but one of the cases occurred in families of very moderate means, only one being able to provide a graduate nurse. All the cases were treated at home, there being objections to allowing their removal to a hospital. Under these circumstances—treatment necessarily at home and without trained assistants—I believe results justified the treatment as given. For the same reasons Quincke's lumbar puncture, of great value in diagnosis, was not used. I am not underestimating intraspinal treatment and would certainly give it trial under proper circumstances.

In closing allow me to emphasize three points.

First—Acute preceding rhinitis is a symptom that should be noted because of its relation to etiology, and because it gives us a possible point toward preventive treatment.

Second—That Kernig's sign is most valuable.

Third—That ergot, recognized as being of therapeutic value, should be given, if at all, in full doses. That improvement followed in every case in which it was used, except in the fulminate form, and that complications and sequelæ were gratifyingly absent. In my humble opinion it is worthy of careful trial.

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#### TREATMENT OF MALIGNANT GROWTHS BY X-RAY.\*

BY C. E. WELLS, M.D.,  
Sag Harbor, N. Y.

My experience with the X-ray began the first of June, 1902. I have treated four cases of epitheliomata.

CASE I.—G. W., first consulted me in 1890 for a growth on the border of the lower lip. It was removed by Dr. Bryant, at Bellevue Hospital, in 1891. It returned and slowly progressed until it involved the whole lower lip and extended up on each side of the upper lip at the time I commenced X-ray treatment in June, 1902.

I gave it a five-minute exposure to a mild tube daily for three months, then ten minute exposures every other day for five months. At the end of the eight months' treatment the sore had entirely healed, its site being covered with soft, pink skin, no scar tissue.

CASE II.—Mr. K., referred to me by Dr. W. J. Morton, had an epithelioma of about half inch in diameter on the left temple. This entirely disappeared after ten-minute exposures to a soft tube three times a week for four months.

CASE III.—Mr. G. K., referred by Dr. G. S. Hunter, of Sag Harbor, aged, 55, with the history of a sore on the back of the neck that had been getting larger for 15 years. When I commenced treatment it was about two inches in diameter. Treatment, fifteen-minute exposures to a medium hard tube three times a week for four months; then, dermatitis being quite severe, stopped treatment. At the end of three weeks he presented himself and I found the sore entirely healed, normal skin having covered its site.

CASE IV.—Mr. S., aged 65, sore on the border of the lower lip that resisted medical treatment for three months. It was about half inch long by quarter inch wide. Completely disappeared after sixteen ten-minute exposures every other day.

These are the only cases of epithelioma that I have treated until discharge. I now have a patient, aged 83, with an epithelioma one inch in diameter, situated under the right ear. He has had only two months' treatment with a mild tube three times a week, but improvement in appearance has already taken place.

I have had one case of cancer of the penis. Mr. S., aged about 65, first noticed the trouble about two years previously. Was advised by some physician in Roosevelt Hospital, New York

\* Read at the regular meeting of the Suffolk County Medical Society, Riverhead, L. I., May, 1904.



City, to have X-ray treatment. The disease seemed to involve the whole substance of the glands, with very little ulcerating surface. After ten minutes' exposure to a soft tube three times weekly for three months, the ulcerated surface healed, but the glands remained hard and there was no relief from pain.

Then changed treatment, fifteen-minute exposures three times weekly, to a hard tube for eight months with no result for better or worse. Mr. S., then becoming discouraged, left for a New York hospital for operative treatment, the result of which I have not been informed. When I commenced this treatment he had some enlarged glands in the groin, all of which disappeared in a few weeks.

#### CARCINOMA OF THE BREAST.

CASE I.—Mrs. Y., aged 55, referred by Dr. H. H. Young. This patient had been suffering for some time with carcinoma in the upper half of the right breast, extending upward nearly to the clavicle and into the axilla with an open sore in the centre about 1 by 2 inches.

I began treatment with ten-minute exposures daily to a hard tube for thirty days, when dermatitis caused a delay of ten days, after which treatment was resumed every other day until present time, about nine months in all. The tumor has slowly sloughed away until the open sore extends from the nipple to the axilla, but shows no sign of repair. The patient's general condition improved very much at first, but during the last month she has been growing weaker and appears to be suffering from absorption from the sore.

CASE II.—Mrs. E., aged 45, presented herself for treatment five months ago with a tumor of the breast a little larger than a hen's egg, complained of sharp pains; the nipple was retracted. Treatment, exposure to a hard tube three times a week for ten minutes; had to stop twice for ten days during the time to allow dermatitis to subside. Up to the present time there is no change apparent in the tumor, but entire relief from pain. I have advised her to have the tumor removed by the knife, and then X-ray treatment used again for two or three months.

CASE III.—Mrs. S., aged 48, consulted me two months ago for a tumor of the breast size of a hen's egg, with little pain, some retraction of the nipple. Treatment, a mild tube ten minutes, three times a week. Tumor now appears softer and pain is entirely relieved.

The results of my experience teaches me that most cases of epithelioma will yield to the X-ray

after one to nine months' treatment, according to size of the sore, vitality and age of the patient. In primary carcinoma of the breast it is of doubtful utility. In recurrence after operation in breast cases I have had no experience, but some operators report good results. I have found the X-ray of value in some cases non-malignant. One case of keloid, a little girl, aged 5, fell and bruised her cheek, causing keloid to develop about three-quarters inch long and one-quarter inch wide. This entirely disappeared after five-minute exposures every other day for forty days.

One case of obdurate acne, a young lady of 18, gave her five-minute exposures three times a week for three months, removing every trace of the eruption.

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#### THE SPHYGMOMANOMETER AND ITS RELATION TO CHRONIC DISEASES OF HEART, ARTERIES AND KIDNEYS.\*

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BY CHARLES L. FINCKE, M.D.

To the practice of medicine it will probably never be possible to give the name of an exact science. Too many uncontrollable factors are found, and too many idiosyncrasies exist in the individual to permit us to determine in mathematical terms the cause and effect of clinical phenomena. Diagnosis, which is the most difficult part of the practice of medicine, offers, fortunately, in some respects, the most chance for scientific accuracy. For the determination of a diagnosis the laboratory gives many conclusive facts, as in the diagnosis of certain parasitical diseases like malaria, or the accurate determination of the essential blood diseases. But the number of man-afflicting ills that can be thus definitely settled by the help of the laboratory is comparatively small, so that it is left to the clinician himself to make a diagnosis for himself, and upon the accuracy of his observations and upon the delicacy of his perceptions depend the facts which are offered for his grasp. So that instruments which are purely clinical, i. e., those which can be used by the practitioner himself in his personal contact with his patients, have wider spheres of usefulness than those which call for the trained skill of a specialist; and one which offers mathematical accuracy for fallible human judgment, however skilled, raises just so far the practice of diagnosis towards the plain of science. The clinical thermometer is, perhaps, unique in

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\*Read at a meeting of the Brooklyn Pathological Society, October 13, 1904.

this respect, but there are many other clinical instruments which have their own value. The palpation of the pulse is probably the most common procedure in the objective examination of the patient, but is far from being an exact procedure in the way in which it is usually done. The rate is only one of the important facts to be gained by this examination, yet it is susceptible of mathematical measurement and so is commonly the only one recorded, and too often the only one noted. The grosser departures from the normal, as irregularity, are easily perceived, but the less notable and yet more important changes in tension are difficult of determination, unless fairly marked. The concomitant signs of high tension, as ringing second aortic sound and enlarged heart, are of undoubted value in diagnosing this condition, but instrumental accuracy will show that they are not by any means always to be depended upon. Instruments for pulse examination have been used for many years. The sphygmograph has its value, but frequently fails to demonstrate those conditions, which it is relied upon to show. Sphygmomanometers, pressure testing instruments, have been on the market for a number of years, but it is only comparatively lately that they have been clinically practical and it is coincident with this increasing practicability that the subject of blood pressure has assumed much importance. The latest and most complete discussion of this subject is given in Theodore Janeway's book, "The Clinical Study of Blood Pressure," published last Spring, and from this source many of the facts in this paper are taken. The study is yet in its infancy and most of the work already done seems merely introductory to a wider sphere of usefulness in the future, and records already obtained can be regarded only as suggestive.

It is undoubtedly true that arterial tension has always been more or less under clinical observation in certain conditions, but from inability to accurately measure it, it has not attained the importance it deserves. In well marked changes in pressure the finger does recognize the altered condition, but it is not possible for even the best trained finger to accurately record the daily or weekly variations in the progress of disease, or to measure the degree of improvement by medical treatment. Another factor which greatly increases the difficulty is the possible presence of sclerotic changes in the vessel, so often associated with high pressure. However plain the theoretical distinction may be, it is not by any means an easy thing, practically, to always distinguish be-

tween these conditions, or when both are present to allow for the thickening and then to get a satisfactory measure of the pressure. I have several times requested two or three physicians who happened to be present in dispensary practice, to palpate the pulse of a patient and give their estimates of the probable pressure. In each case the estimates were widely different and often all at considerable variation from the reading of the sphygmomanometer. It may be questioned if the readings of this instrument are any more accurate than individual judgments unaided, and whether the same machine or different machines would not give a like difference. Undoubtedly each variety of instrument has its limitations, but with a very little experience, with allowances, where necessary, for the special instrument employed, the results will be found to correspond as closely as clinical results can be expected to do, certainly closely enough for all diagnostic and therapeutic purposes. It has been objected to the sphygmomanometer that the sclerosed and thickened artery would so increase the resistance as to give a high reading without any intravascular increase in tension, causing the same error which obtains with the finger. Experimentally, however, it has been proved that a well-marked calcification does not require more than five mm. of mercury to obliterate it, which would raise the reading only a like amount, a negligible error in this place. For training the finger in the study of the pulse, I may say here, that these instruments serve a most useful purpose.

The factors which determine blood pressure are four: The energy of the heart, the peripheral resistance, the elasticity of the arterial walls, the volume of the circulating blood. In the time allotted to this paper, there is no space for a discussion of these factors, which are carefully dealt with by Janeway. They are mentioned here because it seems to me that so much emphasis is generally placed on the second—peripheral resistance—that the others are overlooked. The interrelationship of these four factors is so close, through their nerve connections, that change in one reacts on the others, and in many ways they are compensatory. A single example of this will suffice: the automatic mechanism by which the heart protects itself from overwork. This is a reflex taking place if, for any cause the peripheral resistance is increased. When this occurs, impulses are sent through a special depressor nerve to the vagus center, leading to a slowing of the heart's action, thus giving to the heart, within certain limits, relief from the increased work.



One element is of the greatest importance in the consideration of the general blood pressure. This is the influence exerted upon the general vascular pressure by the abdominal vessels of the splanchnic area. This influence is so great that the chief control of the general blood pressure is lodged here, dependent on the factors, first, that this vascular area is large enough to contain almost the whole blood volume of the body; and, second, that the splanchnics are most easily affected by reflexes from any sensory nerve. This will be considered in more detail further on.

The value of the sphygmomanometer in diseases of the heart varies. In acute endocarditis and in cardiac neuroses it has not yet proved its usefulness. In valve diseases, other than at the aortic orifice, the pressure readings are generally within normal limits. Also, this instrument fails to help us in judging whether or not compensation is present, high pressure often existing and even increasing when compensation fails.

In aortic insufficiency, and in insufficiency combined with stenosis or in combination with certain mitral lesions, the sphygmograph gives us efficient aid. But to get this help it is necessary that we should employ an instrument measuring both systolic and diastolic pressure. In compensated cases, with the large pulse, the systolic readings are those of hypertension. On the other hand, results with instruments giving only diastolic pressure are low. This is the result which was to have been expected, from the pathologic physiology of the condition. The combined readings show markedly this wide difference, the instrumental interpretation of the water hammer pulse. The pulse wave—difference between the two readings—is then extremely high, 75-100 per cent. of the diastolic value. (The normal pulse-wave is about 40-50 per cent. of the diastolic.) Of double aortic lesions, Janeway quotes two cases, to show the value of the sphygmomanometer in helping to solve "the important problem as to which predominates." "One patient with a double aortic lesion, in which the systolic murmur was unusually harsh and pronounced, showed systolic pressure, 115-120; diastolic, 80; pulse pressure, 40; equal to 50 per cent. of the diastolic. A man, on the other hand, with a double murmur, but the systolic element softer, had a systolic pressure of 200; diastolic, 100; pulse pressure, 100; equal to 100 per cent. of the diastolic." In the first case, of course, the obstruction was an important element; in the second, in spite of the audible murmur, either non-existent or negligible. In a similar manner, when aortic and mitral

murmurs coexist, their relative importance may be picked out by studying the relative values of the systolic and diastolic readings. The determination of loss of compensation in these, as in other valve lesions, is not yet susceptible of determination by this instrument. In cases of disease of the heart muscle, the sphygmomanometer is of real aid, in separating the cases with high tension, secondary to or associated with arterio-sclerosis or kidney disease, and those with low tension of primary myocardial disease. These heart lesions are somewhat difficult of brief explanation.

Turning to vascular diseases, the problem is simpler. In these cases, too, an instrument giving only the systolic reading may be used, though in certain cases it may fail in getting all the details which the double readings would give. Most of the studies of blood pressure in the past have been made with this form of apparatus. Arterio-sclerosis is a subject which has always been of great interest to the student of general medicine because of its immense importance to every organ and to every function. Its etiology is still a matter of dispute, as may be seen by the highly instructive series of papers read at the last meeting of the American Medical Association at Atlantic City, and the discussion which followed. Its pathology even is not entirely clear, and its relation to arterial pressure is often not understood. Though in general closely associated, these conditions are in truth independent of each other and each may be present alone. Clinically, our opportunities for observing arterio-sclerosis are limited to the peripheral arteries and to the vessels in the fundus of the eye. Theoretically sclerosis, to a marked degree, may exist in these situations without general corresponding thickening, and practically this does rarely happen, though, as a rule, in true sclerosis, evenly distributed through the peripheral vessels, the same condition obtains throughout. On the other hand, localized nodular thickening in the radial arteries, representing atheromatous patches, is often found alone, the general vascular system being normal. In the first case, the important splanchnic area shares the process and by its controlling power the blood pressure is forced up. In the second, peripheral thickening only exists, the splanchnic system is normal, and the blood pressure is little influenced. Therefore, high pressure with peripheral sclerosis means splanchnic vessels contracted, probably sclerotic, low pressure with peripheral sclerosis means, splanchnics free, probably not sclerotic.

In distinction from sclerosis, cases are found with no thickening, no kidney lesion, which can be found by repeated examination of the urine, which give with the sphygmomanometer abnormally high readings. Such cases have been called angio-sclerosis (v. Basch) or presclerosis (Huchard). Janeway believes that they are due to an early sclerosis of the splanchnic area. In an address opening a discussion on arterio-sclerosis, delivered before the Pathological Society of London, last February, Thos. D. Savill presents a somewhat new field in the study of arterial diseases. This is what he calls "hypermyotrophy," an hypertrophy of the muscular coat of the artery. This may exist alone as a pure hypertrophy, or be associated with degenerative changes. True sclerosis may, of course, coexist. The pathological changes in the vessels pictured in the article show this change very beautifully, while the description of the clinical histories coincide closely with those of angio-sclerosis mentioned above. They presented high pressure with the sphygmomanometer, various circulatory and nervous disturbances, and yet in life and at autopsy no evidence of kidney disease or of true sclerosis could be found. It seems probable, therefore, that at least some of these cases of high pressure are due to this cause rather than to beginning splanchnic sclerosis.

It is in both these conditions, arterio- and angio-sclerosis, that the sphygmomanometer is a source of comfort to the physician. By it we can feel sure that we are not confusing the conditions; with its help we can make an accurate measurement of the progress of the disease and the results of our treatment; by means of its easy demonstration we can interest our patient in his own advance and so enlist his intelligent co-operation. I have under observation at present a man with moderate peripheral thickening, a slight systolic aortic murmur, with blood pressure of 200 (R. R.). In this case the reading of the sphygmomanometer assured me in the diagnosis, gave me a plain indication for treatment—the reduction of blood pressure—and if I am able to demonstrate, after a reasonable time, a pressure even slightly reduced, it will not only guide me in the further conduct of the case, but will, I feel sure, be a source of encouragement to the patient.

In its relation to cerebral hemorrhage, sphygmomanometry has a distinct value. High pressure, as has been stated, does not necessarily show sclerosis, nor does disease of the peripheral vessels imply the same condition in the brain. But peripheral thickening with high pressure

points to a probable like condition throughout, including the brain. That high tension alone, if due to the hypermyotrophy of Savill, is in itself a source of danger is shown by further findings in some of his cases. These showed with the muscular hypertrophy, localized degenerative changes producing bulging areas, which in one case was shown to be the source of cerebral hemorrhage. Hemorrhage having taken place, the sphygmograph now shows the highest readings obtained, and may so be of the greatest help in diagnosis. The average reading in three cases in the Brooklyn Hospital in which observations were taken, was 200.8 (R. R.), but much higher readings are recorded up to 350 and even 400. The theory of this pressure is so interesting and important that I will quote from Janeway its explanation: "Cerebral compression produces the same bulbar symptoms as cerebral anemia. This seems paradoxical until one remembers the mechanical limitations of the cerebral circulation. Since the cranio-vertebral cavity is closed and the brain substance incompressible, the total amount of the blood in the brain is invariable except for the slight expansion made possible by increased absorption of cerebral-spinal fluid at high pressure. If, then, a foreign body of any kind be introduced into the cranial cavity, room can only be made for it at the expense of the blood in the neighboring veins and capillaries. Compression, therefore, produces local anemia, and the symptoms are due, not to pressure, but to the cessation of blood flow. At first, only the veins will be narrowed and the capillary pressure raised. In Kocher's nomenclature, this is the stage of compensation. Few symptoms occur. Little increased pressure is required to bring about venous stasis, with much diminished capillary flow, and brain tension equal to arterial. In the second stage, Kocher's initial stage of manifest cerebral compression, numerous subjective symptoms of general cortical or cerebellar anemia appear, headache, vertigo, etc. . . . Further increase in pressure will now empty the veins and capillaries and as soon as it passes the level of arterial pressure, will completely cut off the circulation. This advanced stage of manifest cerebral compression is, in reality, an acute cerebral anemia, and leads to absolute loss of function. Now it is that the medulla responds with an effort to preserve its life. The vaso-motor center automatically raises general blood pressure above the intracranial tension, and its blood flow begins anew. If the compression goes higher, the vaso-motor center follows with another rise and so, step by step, the



blood pressure may keep just ahead of advancing brain pressure until such enormous figures as 300 and more are reached. Too great emphasis cannot be laid on the fact that the rise in blood pressure during acute cerebral compression is absolutely essential to the preservation of life."

In chronic nephritis, increased blood pressure is one of the classical symptoms. Its accurate measurement, then, becomes of supreme importance in the conduct of the case, and it has been wisely suggested that pulse pressure charts should be kept in all cases. In the interstitial forms, of course, are found the highest readings, especially when, as so often is the case, arterio-sclerosis is associated. But high readings are not invariably found, as in the terminal stages heart weakness may bring the pressure to normal or below. As high pressure is one of the earliest symptoms of this disease, its presence as demonstrated by the sphygmomanometer should suggest repeated examinations of the urine, and may in this way lead to an early diagnosis of a nephritis which would not otherwise have been discovered. Chronic parenchymatous nephritis may or may not cause high pressure is one of the earliest symptoms of additional symptom; its absence does not negative the disease. As an indication for treatment and in watching its results, in any form of Bright's, the sphygmomanometer is of the greatest value. Especially is this true of uraemia, associated with any form of lesion, where the lowering pressure is one of the best indications of improvement. In a case at present under treatment in the hospital, coming with a pressure of 255° (R. R.) comatose, the next day found the reading 200, with consciousness returning, while complete recovery from the acute uraemia, a few days later, gave blood pressure 165°. (This is probably the normal reading for this particular case, one of interstitial nephritis.) Contrariwise, a rising pulse pressure may anticipate an oncoming uraemic attack, and therefore careful observation may prevent the appearance of this complication. In these cases it has been possible to measure exactly what has been accomplished by individual therapeutic agents, e. g., the hot pack, which can generally be counted on to reduce the pressure from 5-10 mm.

In conclusion, it may be repeated that the study of blood pressure is still in an early stage, when too definite laws cannot be laid down. The sphygmomanometer has made it possible to accurately measure and record this pressure. To any one who has used this instrument, even to a slight extent, it seems to offer an opportunity to solve

some of the difficult problems of diagnosis, as well as a guide for the results of therapeutic measures. I believe that with more use and further knowledge of its possibilities, it will prove of increasing value, not only in the few chronic conditions considered in this paper, but also in other diseases, both chronic and acute. Finally, I wish to express my warmest admiration of Janeway's work. His treatment of the subject in his book is so complete and covers so fully all the work done up to the present time, that there is little room left for any originality in the general consideration of the sphygmomanometric measurement of the blood pressure.

166 Clinton Street.

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#### SOME POINTS IN THE DIAGNOSIS AND TREATMENT OF PNEUMONIA.

BY JOHN R. STIVERS, M.D.,

Visiting Physician to the Kings County Hospital.

In a brief paper it is impossible to treat exhaustively a subject as broad as pneumonia, so it is my purpose to lay before you a few facts pertaining to this disease in such a manner as to invite friendly criticism and discussion.

According to recent teachings, pneumonia may be defined as an acute infectious disease, affecting the small bronchial tubes and air vesicles of the lungs, together with a constitutional poisoning resulting from the absorption of toxins produced by the germs. The germ, pneumococcus, was discovered by Sternberg, who first found it in his own sputum. While this germ is frequently found in the sputum of persons in health, it is always present in pneumonic sputum; and it is this fact that justifies us in regarding pneumonia as an infectious disease.

Just a word in regard to the pneumococcus. Experiment has shown that the germ retains its virulence for a considerable time in the dried state, and that such germs have produced the disease in rabbits, by inoculation. I maintain, therefore, that the sputum from pneumonic patients should be disinfected or destroyed just as

carefully as that from tubercular patients. Numerous cases come to our notice where persons have been attacked after apparently having been exposed to the disease.

Men are more frequently attacked than women, probably because of their greater tendency to intemperate habits, and the more exhausting and exposed occupations to which they are subjected.

Pneumonia frequently complicates other acute diseases, such as typhoid fever, whooping-cough, measles, and in fact all the exanthematous diseases, and is frequently the primary cause of death when it complicates any of those conditions. One attack of pneumonia does not protect against another, but rather predisposes toward future outbreaks.

In regard to the pathology, it is only necessary to say that the different stages of the disease are characterized by congestion, red hepatization, gray hepatization and resolution. All these conditions may exist at the same time in different portions of the lung.

While we have all seen many cases of pneumonia, it being a disease common to all seasons of the year, and affecting people in all conditions of life, both old and young, rich and poor, still the diagnosis in many cases is a matter which baffles the skill of the most expert diagnostician. In our student days we became familiar with the history, symptoms and physical signs of the disease, and the day we graduated we felt that the management of so common a disease as pneumonia would be among the easiest of our duties. The word-picture of a classical case, beginning with a chill, succeeded by high fever, pain under the nipple, a dry cough, with rapid respiration, the crepitant râle and rusty sputum, followed very soon by dullness on percussion, and bronchial breathing, left no room for doubt in our minds as to the ease with which those cases could be determined. However, the irregularity of the history and symptoms often render it necessary to be most skilled in the use of the physical signs, palpation, percussion and auscultation, to determine the presence or absence of pneumonic condition.

The symptoms alone are not always an accurate index to the pathological conditions existing in the lung. To demonstrate this fact, I will report briefly one or two cases that have come under my observation. The first case was that of a man, aged forty, of intemperate habits, who came into my office complaining that "he did not feel well." His temperature was 102 degrees Fah., pulse 120, and breathing labored but rapid.

Examination of the chest showed that he had a pneumonia involving the whole right lung. He said that he had been sick for about four days, but had not stayed in the house; in fact, the day before coming to my office he had been in court, doing jury duty.

I advised him to go immediately to the hospital, where he died about twenty-four hours later. The post-mortem examination showed complete consolidation of the right lung, with consolidation beginning in portions of the left lung.

Another case was that of a man twenty-six years of age, who came into my service at the Kings County Hospital a little more than a year ago. He stated that he had been sick for about five days, and that he had been unable to obtain admission to one of the hospitals down town, where he had applied, and that he had walked from there to the Kings County Hospital, a distance of fully three miles.

His temperature, when first seen, was 104 degrees, Fah., pulse 130, respiration labored, and the cough troublesome. Physical examination showed that he had complete consolidation of the right lung. The patient was put in bed and given the treatment which seemed to be indicated by the conditions. He made a good recovery in due time.

Many more cases of a similar nature might be cited, but these two serve to illustrate the disproportion between the symptoms and the actual pathological conditions.

In children there are two sources of error in diagnosis. The disease may be entirely masked by the cerebral symptoms and the case mistaken for one of meningitis. In fact, in those cases, there may be but few indications of pulmonary trouble.

The other condition is pleurisy with effusion, in which the physical signs in children are often misleading. In the latter case the exploratory needle will decide the question.

In making our diagnosis, it is unsafe to rely upon the symptoms alone, but we must weigh carefully the evidence produced by an intelligent examination of the chest. Percussion and auscultation are of greatest importance. Any deviation from the normal percussion note points to an increased density of the lung. Such areas should be carefully explored, noting the extent of dullness, and whether the dullness is absolute or only relative and whether it is produced by deep or superficial percussion.

Having determined by percussion that there is an area of dullness, and the extent of it, auscultation



tion, either with or without the aid of a stethoscope, will help us to find out the stage to which the disease has progressed. If the breathing be pure bronchial, we know that the lung must be consolidated. If it be broncho-vesicular, we know that either the lung is not completely consolidated, or that a central portion is consolidated, but covered by normal lung. It is common to find all varieties of breathing within a small area, for in a bronchopneumonia, the so-called catarrhal pneumonia, the consolidated portion may be very small, perhaps not larger than an egg. This is particularly the case in children.

In regard to treatment, the fact that so many different lines have been recommended by different writers proves that no one system is universally adopted. We are compelled to admit that pneumonia is a self-limited disease, which can neither be aborted nor cut short by any known means at our command.

An observer once stated that a majority of cases of pneumonia would recover with good treatment, without any treatment, or in spite of bad treatment. Notwithstanding that statement, I believe the treatment to be of great importance, and by treatment I mean not only the administration of drugs, but the general management of the case. There is, no doubt, a tendency on the part of many practitioners to overtreat or overdose their patients. It is better to err on the side of giving too little rather than too much medicine. It is here that experience, skill and good judgment aid in discriminating in the use of drugs.

In the treatment of an ordinary case of pneumonia it is my custom, first, to sweep out the alimentary canal with a dose of calomel, either ten grains of the powder, or a much smaller dose if the triturates be used. This should always be followed by saline. In the early or congestive stage one-half drop of the tincture of aconite given every hour, for several doses, gives good results by reducing arterial tension and I believe can always be used with benefit.

After the first day or two the aconite may be discontinued or diminished in frequency and potassium iodide in two grain doses every three hours substituted.

When to give stimulants is a question which we must decide. Whether or not it is better to whip up an already over-worked heart is a condition which confronts us. Undoubtedly many cases do well without *any* stimulation, and in fact it has been stated that many cases have resulted

fatally because of being over-dosed with whiskey.

While there is no general rule that can be applied to all cases, it is my belief that alcoholics and persons in feeble health should always be stimulated, and that it should be begun rather early before the heart shows signs of weakening.

In other cases the physician's judgment will decide when and how many stimulants to use.

If it is decided that the patient needs stimulation, strychnine and whiskey will be found most effective.

At times when there is a sudden onset of cardiac weakness one of the diffusible stimulants may be used for quick results. The aromatic spirits of ammonia I consider the most valuable.

During the stage of resolution potassium iodide and muriate of ammonia, three grains of each, every four hours, will help to liquefy the expectoration. Water to drink should be given freely.

If the temperature be high, cold sponging may be used to reduce it, but never the coal-tar products. Oxygen, I believe, is a remedy of great value, if used at the proper time and in the proper manner. Let us see how the administration of oxygen may benefit the patient. The function of the lung is to supply oxygen to the blood. The oxygen is given up in exchange for carbon-dioxide. If one lung be incapacitated the remaining lung cannot supply oxygen in sufficient quantity to completely oxygenate the blood, and there results an excess of carbon-dioxide. Carbon-dioxide stimulates the respiratory center in the medulla and the patient suffers from shortness of breath and cyanosis.

Now, if oxygen be administered it relieves the excess of carbon-dioxide, and consequently enables the patient to breathe more freely, and restores the equilibrium of the circulation. Allowing the patient to inhale one minute in every five or ten will usually be sufficient. The fact that many times when oxygen has been used in severe cases it has been withheld until there was absolutely no hope, has cast a doubt in the minds of many as to the value of the remedy.

An old method of treatment of the early or congestive stage, which still has many advocates, is the application of dry or wet cups. It is certain that the withdrawal of a small quantity of blood from the surface over the affected side relieves pain and permits of more freedom of respiration.

In regard to the use of opium in pneumonia there are many arguments, both for and against it. In the beginning of the attack a few doses of opium in some form may be given safely and with benefit to the patient to relieve the shock conse-

quent upon the sudden onset of the disease. But as opium tends to a congestion of the lung and locks up the secretions both from the lung and the intestinal tract, I believe the drug should be withheld in the latter stages, except in those cases where there is considerable involvement of the pleura and opium is demanded for its anodyne effect. In central pneumonia the patients suffer but little pain and no anodyne is required.

Theoretically the external application of ice ought to be a remedy *par excellence*, for not only does cold prevent inflammation, but, further, the germs of pneumonia will not grow in a low temperature. My own experience with the use of ice as a therapeutic agent in this disease has been limited to a few cases, but the general results have not been satisfactory.

In the first place, it is a difficult matter to adjust and keep in position an ice-bag just where it is most needed, and besides, the patient usually finds it exceedingly disagreeable. However, in hyperpyrexia, cold sponging is a most efficient agent.

Carbonate of creosote is one of the newer remedies recommended for pneumonia, for which much has been claimed by some who have used it. It is recommended to give the drug in ten to fifteen minin doses every two or three hours. It may be put in capsule or given in mucilage acacia, mixing each dose as needed.

Some have stated that by the prompt use of this drug, attacks of pneumonia have been aborted. Others claim that the duration of the attack has been shortened and that the fever ran a mild course.

I used the drug last year in a few cases, but my experience failed to bear out the extravagant claims made for it by its enthusiastic advocates. It is difficult to determine the curative power of any drug in this disease, but it is probable that by its antiseptic property, carbonate of creosote has some effect on the general toxæmia, and that it also reduces the temperature. I hope to give it further trial.

An agent that I believe well worth mentioning, but which I shall very briefly refer to, is the saline infusion. They certainly do much good both in eliminating the poison and in helping to tide over a critical period of cardiac depression. As much as one or two pints may be injected, the thigh being the favorite seat of injection.

The diet of a pneumonia patient should receive careful attention, and should be nutritious, but in a form easily digested. It should consist of milk, broths, albumen water and coffee, given in small

quantities, but at frequent intervals. It is well to encourage the patient to drink freely of water, either plain or carbonated. A pleasant drink may be made by adding one dram of citric acid to two ounces of simple syrup, and of this, putting two teaspoonfuls into a glass of water, allowing the patient to drink *ad libitum*.

I have outlined in a general way my plan of treatment of pneumonia. But after reading a number of standard text books, and referring to medical literature in general, and after talking with a large number of active practitioners, I am forced to conclude that we have no line of treatment that will successfully combat the disease in many cases. We may control the fever and we may support the heart, but as yet we have no known agent that will limit or control the toxæmia.

We must, therefore, treat the individual and not the disease.

Pneumonia is declared to be the most fatal of all acute diseases, and the mortality rate has not appreciably changed in the past ten, twenty or thirty years. Hospital statistics give the mortality from twenty to forty per cent.

The death rate in hospitals is larger than in private practice, because, as is well known, alcoholics furnish a large percentage of the pneumonia cases in hospitals, and in that class of patients the disease is extremely fatal.

The death-rate in private practice is probably from ten to twenty per cent. Besides alcoholics, the disease is very fatal in the old, and in those whose habits and previous conditions of life have lowered their vitality.

Not being able to cure the disease, we must look to preventive medicine and possibly to some protective serum to enable us to make a more favorable showing as regards the mortality.

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## TWO UNUSUAL CASES OF HEAD INJURY.

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BY CALVIN F. BARBER, M.D.

Those who are in the field of brain surgery see unexplainable results of injuries to the skull. Injuries received in positions which warrant us in anticipating the gravest results sometimes amount to *nil*; on the contrary, slight impactions many times amount to results most serious. But recently a man was seen by the writer, who had been thrown with considerable force from a height and, landing upon his head, sustained a small compound fracture of the vault, from which



he promptly recovered; another instance, of but a few days later, when a man was in a collision, his head receiving the full force of the impact between a locomotive and an automobile, resulting in but a simple fracture of some two inches. Many more of these examples could be cited, but these referred to are sufficient to call to mind the unusual conditions which sometimes occur in injuries to the head. Such cases do well if operated upon at once and sufficient bone removed to relieve the surrounding parts from pressure. This fact I have many times stated in the past, and I cannot urge too forcibly, "Do not be afraid to remove bone even to some extent beyond the seat of fracture."

The two cases which I have especially considered worthy of reporting come well in the class above referred to. They occurred among some twelve others, but were so entirely different from the average case, that their record may serve as a guide to others in this field of work.

One of the cases which seemed most favorable at the time of operating, proved how far from a correct conclusion we may sometimes be when reasoning at our best and with pronounced symptoms to aid us. The other was of a nature which I had never seen and certainly must be rare, as I am unable to find a similar case recorded.

CASE I.—A negro jockey, aged 22 years, native of United States, on July 13, 1904, was riding a horse in a steeplechase race. The horse fell in attempting to jump a barrier. The rider was thrown, as he had been many times before. It is thought by those who are familiar with such accidents, and also by those who saw this accident, that the man, in attempting to rise, was struck by the shoe of an oncoming horse. When picked up he was unconscious; his left ear had been split, dividing it in half; a large hematoma was in evidence behind the same ear. Pulse rapid but regular; pupils contracted, reflexes absent. The skin over the hematoma was not broken, but the impression given to the finger was suspicious. Incontinence of urine prevailed. It was impossible to rouse the patient, but firm pressure over the tumor would cause restlessness. To be on the safe side, I deemed it wise to incise the bloody tumor. Found by so doing a fracture of the temporal bone, with a free hemorrhage coming through the fracture. A trephine opening quickly made brought to light several spicule of bone from inner table of skull. These were removed, also an extradural clot of considerable size. The hemorrhage continued profuse and in spite of the free use of the rongeur, it was found impractica-

ble to further proceed. Gauze packing was accordingly resorted to, to stay the flow. The packing was removed in forty-eight hours and the expected improvement did not take place. The patient remained unconscious until he died, the night of the 16th. In the meantime his temperature had been to  $104^{\circ}$  and his pulse to  $120^{\circ}$ . After other accidents I am told he remained unconscious for several days. I simply state this fact as it may have some bearing upon the findings, *post-mortem*.

Dr. Hartung, the coroner's physician, made the autopsy and his report is quite brief and to the effect that nothing unusual was met, until the calvarium was removed. Then it was discovered that at a point directly opposite the point of opening in the skull, where the fracture existed, there was an extensive hemorrhage (subdural). No evidence of fracture at any other point on skull save the one operated. This certainly is a typical example of injury *contracoup*. In a very large number of cases of fracture of the skull, both operable and inoperable, which I have personally seen, this is the first which has clearly demonstrated the type of injury here reported.

Little is written regarding the condition, it being only now and then mentioned by authors. I am impressed with its rarity, as few writers refer to it from their own personal experience. It is well to bear the possibility of such a condition occurring in dealing with head injuries.

In this case it seemed that all was done that could have been accomplished from the symptoms present, and yet, had the offending clot been suspected, its removal would have permitted of a different outcome. The suspicious spot was attacked, the fracture found and taken care of; but the profound and unyielding coma led us to the belief that a hemorrhage into the brain or at the base was the cause of the trouble.

The second case I report to show what a peculiar condition can be produced by a severe concussion to the head, where resistance was practically *nil*. It occurred upon the person of low mental caliber, aged 17 years, born in the United States. This boy was returning from a day's outing at Coney Island, July 28, 1904. At the time of the accident his head was extended out over the rail which is used to protect the entrance to open cars upon the inner side of the cars. A car struck his head while passing in the opposite direction, his head being free from any resisting body. He was picked up unconscious and brought to the hospital; an open wound was found in the frontal parietal region, also one in occip-

ital. After the entire skull was shaved, no depression could be felt nor irregularity detected either in the wound or about the skull. The bones felt perfectly smooth, but a most peculiar shape seemed to be assumed by the half of the skull which bore the marks of injury. It seemed as though the right half of the cranium had been pushed backward, but the sutures had held their normal position. One side of the skull was normal in shape while the other was flattened and displaced backward.

I enlarged the anterior wound, expecting to find a fracture of some description, but the conditions under the scalp felt as they did through it. No fracture was found. The next day his temperature ran to  $103^{\circ}$  and pulse increased in beat, breathing became bad, pupils slightly irregular. Jerking movements of the legs and arms. Upon the 30th, nothing important in way of new symptoms, but much restlessness. The case was seen upon the 31st by Dr. Wm. Browning, who advised an opening to relieve pressure if a fracture could not be found. We reopened the wound first found and proceeded to open the skull. A few turns of the trephine were enough to secure a button of bone, the condition of the bone being one of extreme softness. After the outer table was entered the remainder of the bone was like wet paper, cutting just as easily as one might expect wet, loosely-packed sawdust to give under similar instruments. The inner table at this point was found to be depressed. This was easily removed. Enlarging the wound showed that the peculiar condition extended for a considerable area before sound bone was found. Were it not for a very thin shell of sound bone upon outer side of outer plate and inner side of inner plate, a cutting instrument would not have been needed. When good, resisting bone was finally struck, it was just as difficult to divide as we might have expected. The entire intermediate portion of the bones seemed to have been ground to a fine powder which offered no resistance to the rongeur. Upon the following day the patient's condition was far from good, he being very restless, respiration bad and a slight cough developing. Upon the next day, two days after the second operation, he spoke for the first time since the accident, and the following day called his sister by name. The improvement was gradual until the 13th, when he was removed to Manhattan. He was dirty in his habits and would gorge himself if allowed at meal time. Before the second operation it was necessary to feed him with a tube. He was of the lowest type of humanity, therefore we cannot tell

just how far our improvement has progressed. The greatest point of interest was the condition of the skull. I have never read nor come in contact with such a one as was met with in this instance. It seems impossible to produce it artificially, for a blow sufficient to loosen the inner table would break the bones in many pieces. If you could bring force enough to pulverize the interior and leave the exterior and inner wall in normal condition, you would have just what happened in this instance. It was as though the outer and inner tables had been separated, and then, by friction, the interior pulverized.

These two cases presented such rare conditions that I deem it fit to present them, although the histories are brief and perhaps not entirely complete. It may be that some of the readers of this communication have seen similar cases; if so, I should consider it a favor to hear from them, as any addition to this department of surgery is of much value.

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## TRANSACTIONS OF SOCIETIES.

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### THE MEDICAL SOCIETY OF THE COUNTY OF KINGS.

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STATED MEETING, OCTOBER 18, 1904.

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The President, J. E. SHEPPARD, M.D., in the Chair.

There were about 125 members present.

The meeting was called to order, and the minutes of the previous meeting read and approved.

#### REPORT OF COUNCIL.

The Council reported favorably upon the following applications for membership:

E. S. Morton, 194 Keap Street, P. & S., 1894.

John A. Longmore, 26 Schermerhorn Street, L. I. C. H., 1900.

#### ELECTION OF MEMBERS.

The following having been duly proposed and accepted by the Council were declared, by the President, elected to active membership:

O. M. Dewing, P. & S., 1887.

A. J. Capron, Albany Med. Coll., 1894.

C. S. Cochrane, L. I. C. H., 1900.

T. H. Dexter, L. I. C. H., 1901.

W. B. Brader, Univ. of Penn., 1885.



## APPLICATIONS FOR MEMBERSHIP.

Applications have been received from the following:

Charles Balduan, 642a St. Marks Avenue, P. & S., 1901. Proposed by Stephen L. Taylor; endorsed by Joseph P. Murphy.

E. R. Hildreth, 983 Bergen Street, Cornell, 1902. Proposed by Walter C. Wood; endorsed by George L. Buist.

## PROPOSED BY MEMBERSHIP COMMITTEE.

David Sherman, 272 Ninth Street, L. I. C. H., 1896.

F. J. Bruce, 391 Second Street, L. I. C. H., 1887.

Kurt L. Elsner, 713 President Street, Munich, 1897.

Edward Parish, 298 Schermerhorn Street, L. I. C. H., 1898.

Walter H. Muchmore, 422 56th Street, N. Y. Univ., 1894.

Howard J. Wood, 413 55th Street, Albany Med. Coll., 1885.

Ralph C. Williams, 472 51st Street, Trinity, Toronto, 1898.

Herman F. McChesney, 90 Halsey Street.

John Joseph Sheehy, 349 Union Street, Univ. Wooster, Ohio, 1891.

Thomas F. Patterson, 87 Williams Street, L. I. C. H., 1896.

William E. Thomas, 579 Carlton Avenue, P. & S., 1895.

Neil McL. Whittaker, 195a Washington Park.

Fred H. Wilson, Bushwick Hospital.

## SCIENTIFIC PROGRAM.

1. A New Form of Inflation Bag for Rapid Dilatation of the Cervix Uteri. Dr. Ralph H. Pomeroy.

Discussed by Drs. Stuart, Jewett and Polak. Closed by Dr. Pomeroy.

2. Paper: Fissure in Ano. Dr. Earle H. Mayne.

Discussed by Drs. Bogart and Mayne.

3. Paper: Diagnosis of Ectopic Gestation. Dr. Albert M. Judd.

Discussed by Drs. McNaughton, Baldwin, Jewett, Chase, MacEvitt and Haller. Closed by Dr. Judd.

Adjourned.

WM. C. WOOLSEY,  
Associate Secretary.

## THE MEDICAL SOCIETY OF THE COUNTY OF KINGS.

STATED MEETING, SEPTEMBER 20, 1904.

The President, J. E. SHEPPARD, M.D., in the Chair.

PAPER: A BRIEF REPORT OF EIGHT CASES OF CEREBRO-SPINAL FEVER, WITH SPECIAL REFERENCE TO THEIR TREATMENT WITH ERGOT.

BY DR. CARROLL CHASE.

(See page 401 of this issue.)

*Discussion.*

Dr. WM. BROWNING: A systematic presentation of this subject, as given by Dr. Chase, is especially in order at this time, as we may have an epidemic on our hands again this winter. An interesting question is, of course, as to the possibilities or probabilities or reasons why we may or may not have it. It seems to be a house-bred disease. And perhaps one reason why we had so much last spring was the very severe winter preceding, in consequence of which the houses were kept more closed and there was less light and air.

As to the symptoms, I have nothing to add to what the Doctor has given. I recall three cases last year in which that very unfortunate complication, sudden and total deafness occurred. This is apt to be persistent. At the same time there is one redeeming feature—such cases usually live.

As to the treatment: so far I must conclude that the old treatment by opium or its alkaloids is the best single line we have and gives us the most satisfactory results. Of the use of ergot I have not seen anything of late. I remember something of its use in past years, though with inconclusive results. It is important to employ a remedy according to some definite method, and I am thankful to Dr. Chase for presenting and advocating a scheme of using it.

Dr. L. C. AGER: This paper seems to me to be of particular value to those interested in pediatric work. In the first place the number of cases is small to draw any definite statistics from. The death rate is surprisingly low, but whether that is due to the particular manner of treatment, of course it is impossible to say. At the same time it is very encouraging. The work of Lambert, in

New York, in the use of ergot in various forms of cerebral and meningeal congestion, particularly in the alcoholic wards of Bellevue is, of course, suggestive along this line.

There are one or two things I should like to ask Dr. Chase in the use of ergot. In my experience even in a normal stomach it is apt to be very badly borne, and I would like to ask in what percentage of these cases he found he could use the ergotole repeatedly without upsetting the stomach, and on the other hand in using it hypodermatically how much local disturbance he had. I have tried to use it hypodermatically in various congestive conditions, but in my experience there is great repugnance to a second dose, although I tried to use it in the way suggested by Livingston, by the very slow injection of the solid extract in aqueous solution.

Dr. A. C. BRUSH: I think that Dr. Chase's treatment ought to be given a full and thorough trial, for as yet we have very little means of combating cerebral spinal meningitis in the epidemic form. In all the diseases I know of this is the most erratic in course. The most desperate cases get well without reason, while the mildest have the most unfortunate sequelæ. I remember a case which remained in coma for two weeks, and I gave a bad prognosis. The child is a perfect picture of health to-day. The treatment was simply suspended and the child allowed to recover.

I think if ergot is used it should be used freely. To-day I have seen four cases of deafness, in which there is little or no hope of recovery, due to this disease. I have seen several others during the past few months.

In treating a case with ergot, I do not quite understand the method by which it acts on the cerebral vessels, for there we have little or no muscular wall, as pointed out by Delafield and others, and by contracting the peripheral circulation it has been argued against the use of ergot, that it will only increase the arterial tension in the brain. Whether this is a theory or founded on fact I am unable to say, but if the drug will produce any such effect as Dr. Chase has found, it certainly should be used.

As to the death rate, there is no disease in which the death rate varies so markedly. In one class of cases the death rate will run up to 80 per cent. or 90 per cent., and in another we get a low percentage. Dr. Chase's percentage of 25 per cent. is low, and the absence of sequelæ is certainly remarkable.

Dr. C. CHASE: In answer to the question as to whether the ergot caused vomiting or the hypo-

dermatic injections caused pain: As has been stated, in one case the projectile vomiting was so constant and severe I stopped giving medicine by mouth and gave hypodermatic medication entirely. A couple of other cases gave some trouble by vomiting, but nothing very noticeable. The ergotin was given in chocolate-coated tablets, and ordinarily there was no trouble in the stomach retaining them. In using hypodermatic medication I followed Dr. Livingston's suggestion of dissolving one drachm of Squibb's solid extract in an ounce of water, adding a couple of drops of chloroform and filtering. I do not remember that the patients complained of much pain. However, frequently they were delirious or but partly conscious.

Frankly, I have repeatedly asked myself the question whether ergot cured these cases or not. When I look back and note the results, and the fact that improvement began soon after starting with the ergot, it makes me believe there is something in it.

PAPER: NOTES ON THE TREATMENT OF CARDIAC INSUFFICIENCY: WITH REPORT OF A CASE OF ACUTE MYOCARDITIS.

BY DR. EDWARD E. CORNWALL.

(Published in October issue of this Journal.)

*Discussion.*

Dr. H. G. WEBSTER: It seems to me there is one important point in the treatment that the Doctor failed to mention, and that is one that in my hands has proved a great comfort to the patient: I mean the use of the ice bag. One of the most painful and uncomfortable features of insufficiency of the heart is the tumultuous action and subsequent pain with the dyspnoea and mental distress that go with it; and not once or twice, but a number of times, I have seen that disappear promptly when the ice bag was put over the heart and kept there. Mustard will sometimes produce the same effect, but the ice is more often of benefit.

I confess to my preference for strophanthus over digitalis. I think that the commercial preparations of digitalis are apt to be impure; most of the tinctures that are dispensed are made from the fluid extract. They lack in the immediate results which come from the use of fresh and properly prepared tinctures, and therefore the fluid extract is possibly preferable, or the fresh tincture if it can be obtained. Strophanthus seems to stimulate without producing the



over-stimulation that digitalis sometimes carries with it.

Another point in the treatment of the disease is to determine as accurately as may be, just what work the heart is accomplishing without the use of stimulating drugs, and the systematic use of one of the blood pressure apparatuses that are now easily obtained, and at fairly reasonable prices, is of great service. I have been surprised in taking readings by the sphygmomanometer, that the actual blood pressure, while apparently very small to the finger, was about up to the normal standard, the probability being that the heart was able to do its work if peripheral pressure could be eliminated. In these cases digitalis is contraindicated, because it certainly does have a tetanic effect on the arteries, and there is more work upon the heart. There are two or three forms of the apparatus that are now on the market, including the recent modification that Janeway has devised. The latter is the nicer instrument, although considerably more bulky. It gives a pulse wave that can be noted while the others do not, and one can estimate the excursion of the pulse, its force and frequency in addition to reading the actual systolic and diastolic pressures.

Dr. W. TRUSLOW: The author of the paper has referred to one form of treatment, which I take it is considered applicable only to that stage of cardiac insufficiency, in which the greater amount of inflammation has subsided. I refer to systematic exercise. I would like to add a word or two of experience to that, and recall in particular a patient, a young woman, who was sent to me by another physician. She had been under treatment for some time, largely the rest treatment. It seemed as if the heart was getting sluggish and needed building up. This she got under systematic daily exercises.

The speaker referred to the necessity of caution in prescribing exercise. I not only agree but insist that, with cardiopathic patients, he should himself oversee and direct the latter's physical work; at least until he has determined the patient's limitations and possibilities. He cannot sufficiently observe this unless he is present at the time of exercise.

It is interesting to note that half an hour of physical work may diminish rather than increase the pulse rate. The exercises which tend to increase lung capacity and may be taken while the patient lies on the treatment couch, are valuable in this gymnastic therapeutics.

Dr. E. E. CORNWALL: Just a word about the comparison between digitalis and strophanthus.

These two are undoubtedly the best drugs we have for the purpose mentioned, but whether strophanthus is better than digitalis, as Dr. Webster thinks, or *vice versa*, as many others think, is not easy to decide, because they are not quite parallel in their action. Both contract the heart muscle, but strophanthus does it more powerfully, though less persistently, than digitalis. On the heart muscle, however, their action is sufficiently alike to permit them to be used interchangeably when the blood pressure is not high. The chief difference is found in their effect on the kidneys. Strophanthus has only a moderate effect on the urinary flow, while digitalis is a powerful diuretic. As diuresis is an important means of relief in many cases of cardiac trouble, digitalis is seen to have a therapeutic value which strophanthus has not.

#### PAPER: SOME POINTS IN THE DIAGNOSIS AND TREATMENT OF PNEUMONIA.

BY DR. JOHN R. STIVERS.

(On page 409 of this issue.)

#### Discussion.

Dr. W. N. BELCHER: I think we are indebted to Dr. Stivers for having brought this important subject before us this evening for our consideration, and that the Doctor is to be complimented for the concise and practical manner in which the subject has been presented.

Concerning the communicability of pneumonia, it may be said that there can be but little doubt that it can be communicated, and that the modern treatment of this disease is being directed more and more toward the prevention of infecting others. Its contagious nature is not as pronounced as in some other diseases, but the so-called epidemics which have occurred in sections of cities where hygienic conditions were not good, have given us the best evidence that this disease, being microbic in origin and a member of the group of infectious diseases, is capable of transmission. In line with the care of other infectious diseases, absolute cleanliness and the proper disinfection of sputum and excreta should be practised.

The Doctor has called attention to patients who had walked into the hospital not apparently critically ill, the physical examination of whose chests showed the disease well advanced, and extensive areas of consolidation present. This is not an uncommon experience, I think, of those who have served in dispensaries for any length of time. In these

cases, as in all others, it is the individual we have to take into consideration. Some people will give up and go to bed on the slightest provocation, while others will keep up and about for days with conditions revealed by physical examination seemingly almost overwhelming. In this class of disease the element of toxæmia is a most prominent one. The type and the degree of infection are most important. There is, of course, a certain relationship existing between the amount of lung involved and the symptoms presented, although some patients will show a more or less profound toxæmia with a relatively meagre amount of lung consolidated. The degree of systemic infection is quite as important a factor as the extent of the anatomical lesion.

The diagnosis, under ordinary circumstances, should not be attended with difficulty.

It is my opinion that many cases of pneumonia are too heroically treated. By this I mean that they receive too much medicine and too little hygienic care. Many physicians try too hard to fight the disease, and not hard enough to sustain the patient. Many of these patients do well if they are carefully watched and not disturbed too often. The condition of the patient himself should be watched more carefully than the local phenomena. The latter are important, of course, but they are of secondary importance.

I believe that many of these patients are given antipyretics, cough medicines, and other drugs at frequent intervals, and are not allowed sufficient rest and sleep.

The average physician in treating a case of pneumonia knows that he has a serious matter on hand, that he is dealing with a treacherous enemy, and in consequence he is anxious and worried. In his anxiety he may overtreat the case.

Many of these cases, I believe, are overstimulated, and they are stimulated too early. Strychnia has gotten to be a very popular remedy. It is a most valuable agent, but it must be used with judgment. I have seen cases of pneumonia in the wards of a hospital put upon strychnia the day of their admission as almost a routine treatment without regard to whether it was indicated or not. Strychnia is one of our most valuable agents in the treatment of this disease, but if it is used when it is not needed, it is capable of doing much harm.

In regard to the use of creosote in the treatment of pneumonia, it may be said to have its advocates and its opponents. I do not believe that experience has borne out the fact claimed that creosote carbonate will abort pneumonia or lessen

the degree of toxæmia to any appreciable extent.

It was used as a routine measure in all cases of pneumonia in the medical wards of the Long Island College Hospital last winter. We had many cases. In the first half of these cases the results were remarkably good. In the last half the results were equally disappointing. As far as could be judged, the carbonate of creosote was not an important factor. It was noted, however, that a troublesome and distressing tympanites, which had been a fairly common occurrence in pneumonia before its use, has been rather a rare feature since that time. In so far as this treatment aided the general comfort and well being of the patient and reduced the amount of distress and tax upon the nervous system, the carbonate of creosote has proved a valuable agent.

Oxygen has been spoken of. I think it is a valuable agent in this disease, but I believe it has been overestimated. In some cases it has seemed to be very useful, while in others very disappointing, although used reasonably early.

In the treatment of this disease one must be ever on the outlook for danger signals. One must keep a careful watch on the pulse and upon the second sound of the heart at the base. The degree of infection is most important. The first approach of the suggestion of danger is the time it must be met with appropriate treatment, if your treatment is to be of any use at all. Here is where your stimulation is called for.

The two most reliable measures I believe to be strychnia and whiskey, beginning with moderate doses, and increasing to maximum doses, to even decided heroism, if necessary.

Digitalis, I believe, is ordinarily not indicated. It is not reliable. It is slow of action. It is a gastric irritant. It increases vascular tension and peripheral resistance. Likewise in the presence of fever it is practically inactive.

When it becomes necessary in this disease to support the heart, it must be supported, and the only reliable channel of introduction of the agent into the system is by way of the hypodermic syringe.

In collapse almost everything has been used with varying effects. In hypodermoclysis we have had our most satisfactory results.

Dr. H. A. FAIRBAIRN: I would like to ask Dr. Belcher if he used guaiacol carbonate or creosote carbonate, and what doses he employed.

I have used both preparations faithfully in three hospitals, for several years, in the treatment of pneumonia, and am satisfied that they are the best remedies we have. They appear to



shorten the course of the disease and ameliorate the symptoms. I am sure that they have aborted the condition on several occasions. Large doses must be used in severe cases, ~~once~~ <sup>three</sup> of creosote carbonate in twenty-four hours, or an equal amount of guaiacol carbonate.

They appear to act as antitoxins. I have thorough confidence in them.

Pneumonia, central in origin, is not easy to diagnose. We see many cases that are overlooked for the first three or four days. There is an important symptom which may help one to recognize these cases early, the disturbance in normal ratio between pulse and respiration. In health it is 4 to 1, in this disease the respirations are quickened to 3 or even 2 to 1. The use of the tuning fork will aid in discovering consolidation. I cannot agree with the opinion, expressed here, that pneumonia is frequently over-treated. There has been more of a tendency to undertreat it. Exhaustion of heart muscle is one of the great dangers in this disease. Cardiac stimulation, at an early day, is demanded. As Dr. Jacobi remarked with great force, "heart failure is more easily prevented than cured." Do not be so expectant as to be neglectful.

Give little food in this disease. Do not use morphia.

Dr. E. H. BARTLEY: I wish to add my testimony to the value of creosote carbonate. I agree entirely with Dr. Fairbairn in his estimate of it. I am certain that I have seen the results he describes.

The paper has informed us that pneumonia occurs at all ages, from the very young to the very old, and that it is especially serious at the extremes of life.

With your permission I will confine my remarks to the disease as it occurs in children. While there is probably not much difference in the frequency of occurrence between children and adults, there are some peculiar things about the diagnosis.

The onset of lobar pneumonia in infants and young children usually occurs, in the order of frequency, first as a sudden fever, somnolence and apathy in a certain number of cases, in another series of cases it occurs first as a chill, in children over six or seven years of age. Under six or seven years, simply a sudden fever. Sometimes we have a convulsion, or repeated convulsions; the convulsion, however, as a symptom at the onset of pneumonia is rather less frequent than has been claimed in many of the books.

Another symptom of onset is vomiting. A very

considerable number of cases of pneumonia in children begin by obstinate vomiting, sometimes projectile in character, such as to lead us astray and lead one to believe the whole trouble to be in the gastric or gastro-intestinal mucous membrane. The convulsions and vomiting are somewhat peculiar to children.

The pain in infants is sometimes in the side, but more often the child, when asked to name the spot or put his hand where the pain is, will put his hand somewhat indefinitely upon the abdomen, but he will not be able to localize it. This pain in the abdomen is characteristic of a considerable number of cases of beginning pneumonia.

Curiously enough, in the largest number of cases the left lower lobe is involved; the next in frequency is the right upper lobe, and I believe no explanation has ever been offered as to why that is so.

The breathing is always accelerated from the beginning, and it generally rises to from 55 to 75 per minute. The child is just as likely to recover with a respiration of 70 as with a respiration of 55.

The pulse is always accelerated to from 140° to 180°. The prognosis with a pulse rate of 180° is generally doubtful or bad. With a pulse rate of 140° or less, the prognosis is good. The temperature, respiration and pulse rate in infants is a matter of secondary importance; they do not have the same prognostic value it has in adults. Heart failure in pneumonia in infants is not a common occurrence. Collapse is not common.

I wish to emphasize the abdominal pain as one of the leading symptoms of pneumonia, more often seen in infants and young children, than pain in the side.

There are one or two other signs that have been noticed. Pfaundler noticed a loss of knee jerk in one or other knee, generally on the side of involvement and especially in the cerebral variety. Weill calls attention to another symptom of pneumonia consisting in a lack of subclavicular expansion on the side affected. The side on which the pneumonia occurs, whether upper or lower lobe, shows no expansion of the subclavicular space on that side. At this point, also, there will be tenderness on percussion. That is an important sign in young infants.

During the first week the temperature generally rises abruptly to from 103° F. to 106° F., occasionally over 106° F. These latter cases are most likely to be central pneumonias, or what has been termed latent pneumonia. These are the

cases, as a rule, that give the very high temperatures, and are generally serious in young infants. When we are dealing with a central pneumonia, we never know what it is going to be when it comes to the surface.

Bronchophony or exaggerated bronchial breathing is one of the things especially prominent in infants, and this can be detected before percussion will detect dullness, because of the nearly normal lung between the chest wall and the site of the consolidation.

Another characteristic sign is the peculiar herpes that we see about the nose and mouth. This is quite characteristic of pneumonia, and is very rarely seen in pleurisy.

Vocal fremitus in infants is very difficult to get because of the high pitch of their voices, and because the rapid vibrations are not transmitted to the chest wall.

The prognosis where the temperature is below  $103^{\circ}$  is good. The temperature is not always proportional to the amount of lung involved. The death rate during the first year is about double that of the second year. The younger the child the worse the prognosis.

There are some varieties of pneumonia as we see it in children which are not so marked as in adults. The cerebral variety, which sometimes inclines us to believe that we have to do with a case of meningitis. Cases that begin with convulsions are likely to be mistaken for cases of meningitis. There is this difference: In the interval between the convulsions, in meningitis, the child does not recover consciousness; in pneumonia it does recover consciousness. A series of convulsions, in meningitis, is liable to prove fatal in two to three days. In pneumonia the convulsions cease when hepatization has been established, and then the child recovers consciousness.

The differential diagnosis between pleurisy and pneumonia in infants is sometimes quite difficult. If, however, the temperature is below  $104^{\circ}$  during the first week, it is more liable to be a pleurisy, because the temperature during the first week in pleurisy does not generally run as high as in pneumonia. There is no fremitus in pleurisy; there may possibly be in pneumonia. There is no bronchophony in pleurisy; there is in pneumonia. The pain in the side is rather characteristic in pleurisy, respirations are jerky; the pain in pneumonia, at least half the time, is referred to the abdomen instead of the side. From these symptoms we can usually make a differential diagnosis between pleurisy and pneumonia.

## THE BROOKLYN PATHOLOGICAL SOCIETY.

452D REGULAR MEETING, OCTOBER 13, 1904.

HENRY G. WEBSTER, M.D., EDITOR.

The President, J. C. MACEVITT, M.D., in the Chair.

Presentation of Specimen: Pericarditis with Adhesions.

Dr. G. E. DEELY: This is a case of pericarditis with adhesions following an attack of acute pericarditis. The specimen shows very well the development of the adhesions, the enlargement of the heart and the dilatation.

Paper: The Degenerative Changes in the Myocardium which give rise to serious Cardiac Disease. By Dr. Raymond Clark.

(Will appear in the next issue of this JOURNAL.)

### Discussion.

Dr. E. E. CORNWALL: The paper interests me because I have had an experience with one of the forms of myocarditis, which was not mentioned, diphtheritic myocarditis. Of course you all know that form is very common. The majority of cases die unrecognized. In the last fifteen years a good deal of scientific research has been devoted to the subject, and it has been found that myocarditis is a very frequent lesion in fatal diphtheria. The majority of cases die before treatment is commenced. I happened to get one a short time ago which showed itself early, and was put under treatment and got well. In studying up this particular case I came across valuable experimental researches reported in France. Experiments were made on animals, the poison of diphtheria being injected in toxic doses. In every single case examination of the heart afterwards showed a parenchymatous degeneration involving the muscular fiber.

As to the specimen of pericarditis, I had a case of double lobar pneumonia in which pericarditis developed. The patient got over the pericarditis before the pneumonia resolved. It was two months before the pneumonia resolved. At the present time he is up and around and feeling well. For a month, nearly, he ran an evening temperature of  $102^{\circ}$ , morning,  $100^{\circ}$  or over. The temperature has disappeared and the heart is pretty good now.

Dr. R. CLARK: I would like to say that, of course, I did not speak of all the degenerations of the myocardium that may take place, because



they did not occur in any of these autopsies. I confined myself to a discussion of the degenerations of the myocardium found on autopsy among the cases at the Seney Hospital.

#### PRESENTATION OF TWO SPECIMENS: MALIGNANT ENDOCARDITIS.

Dr. J. J. COLLINS: These are specimens of two cases of malignant endocarditis. One of them is from a woman 28 years of age, admitted to St. Mary's Hospital, August 18, 1901. She gave a history of labor which came on three months previously, following which she was sick in bed for three weeks from what would seem to be a puerperal fever, after which she did not get well and was treated at home for malaria. On admission to the hospital the lungs were found normal; the heart sounds were feeble; no murmurs were heard; the pulse rate was from 100 to 120. Examination of the blood for malaria was negative. The Widal reaction was negative, and in fact there were practically no physical signs, except that she was running a temperature of 100° to 103°.

About one week after admission she complained of pain in the right elbow, with redness and swelling; the right radial pulse became imperceptible. About ten days after admission there was a systolic murmur at the apex. Purpura developed. The temperature continued the same, and the patient died on September 2, 1901.

On autopsy the lungs showed hypostatic congestion; the heart was hypertrophied with a large growth on the mitral valve. The spleen was enlarged, with the uterus enlarged and boggy.

The second specimen is from a boy 13 years of age. I saw this patient December 15, 1901. He had been complaining for a week of rheumatism, and gave a history of having rheumatism six years previously. At the time of my first visit his temperature was 101°, pulse 120, and he complained of pain in the knee and elbow joints, which were swollen and tender.

There was a systolic murmur at the apex and one at the base, and a blowing sound could be heard distinctly all over the chest. The abdomen was extremely tender, and we could not elicit anything on account of this extreme tenderness.

On subsequent visits there was no signs of improvement, the temperature keeping about 102°, the pulse 140. Early in January the patient had complete paralysis of speech and deglutition, which lasted 24 hours. He almost fully recovered from this, but a paralysis of the right arm

ensued which continued for two weeks, after which no other signs of emboli were discovered. The swelling and pain in the joints did not vary much. The patient's condition remained the same until February 16, 1902, when purpura developed with a hemorrhagic gingivitis and bleeding from the nasal mucous membrane. The patient died March 3, 1902.

Autopsy showed a number of vegetations in the right auriculo-ventricular valve extending up into the auricle.

In the first case there was a pericarditis. The adhesions were so strong that it was with difficulty that the heart muscle could be separated from the pericardial sac.

PAPER: ENDOCARDITIS.

BY DR. H. C. KEENAN.

PAPER: THE SPHYGMOMANOMETER AND ITS RELATION TO CHRONIC CONDITIONS OF THE HEART, ARTERIES AND KIDNEYS.

BY DR. C. L. FINCKE.

(Article appears on page 405 of this number.)

DEMONSTRATION OF INSTRUMENTS.

Dr. H. G. WEBSTER: Simply to supplement Dr. Fincke's paper, I want to show a few forms of clinical apparatus that are practically all modifications of older and more complicated instruments. This one, which I believe is Potain's, is based on the spring manometer principle. The idea of its mechanism is to inflate this small rubber bulb, and then by pressure over the radial artery, the moment when the pulse is obliterated below is noted on a dial and the number of millimeters of mercury is registered. The apparatus is not a particularly valuable one because of the fact that the pressure is diffuse and not easily controlled.

Another of much the same form is that known is Gaertner's tonometer. Its first objection is that it is patented. The principle upon which it works is this: A finger is chosen and one of these heavy rubber bands is rolled over it. This is usually sufficient to exsanguinate the portion of the finger distal to the band. While that is still in place, this ring, which is a hollow metal ring with a closed rubber capsule, is slipped over the finger beyond the band, and then pressure is exerted on the rubber bulb by means of this clamp. The pressure is raised until the operator, whose judgment is the result of his experience, thinks he has exercised a sufficient pressure to more than overcome the pressure of the artery, then the band

is removed, and you can see that it is not an easy thing to do. When that is removed the pressure is gradually relieved until the patient feels the sense of returning circulation in the finger. That is visible to the eye if the skin of the finger is thin, as in women and men of clerical calling, and at that point the pressure is read on the face of the spring manometer. A serious objection to this instrument is its expense. A much more serious objection is that this rubber capsule is always broken when you want to use it.

A much more practical instrument is the Riva Rocci machine, with which Dr. Fincke's work has been done in the Brooklyn Hospital, and that depends for its use on the brachial artery. The arm is bared and the instrument put together. You see it has a chamber containing metal mercury, and this rubber compression apparatus is applied to it. Then after it has been arranged this band is slipped up over the arm and drawn as snugly as can be, and then it is hooked. The cloth cover contains a sausage shaped rubber sac. It hooks together in this way, and then with one finger on the radial pulse, pressure is exerted on the bulb and the mercury column rises until the height of the mercury is just sufficient to overcome the resistance of the artery and the pulse at the wrist ceases. The reading is then taken on the graduated scale and is read off in actual millimeters of mercury. That instrument is a good one, but has the disadvantage that this narrow band does not offer a sufficiently broad area of resistance to the soft parts, and the result is the same as if you were to tie a small string around the arm and tried to obliterate the artery in that way. It requires a considerable force to do that, and the result with the Riva Rocci machine is that the readings are high because of the pressure that has to be exerted.

Janeway's instrument is probably the best now on the market, both from the standpoint of durability, cheapness, accuracy and ease of use. It is applied in this way: The mercury which is contained in the tube is freed by removing the cork and placing the extra length of tube. The mercury in the two arms is levelled, and then the sliding scale is slipped up and down until the zero mark corresponds with the level of the mercury. Then this leather belt, which contains a square rubber bag, is slipped over the arm in such a position that the center of the bag at this point is as nearly as possible over the brachial artery above the bend of the elbow. It is not necessary to take off anything but the outer clothing. It can be applied over the shirt with perfect ac-

curacy. Then the reading is made as in the Riva Rocci machine, by compression of the Politzer bag, and the reading is taken on this scale when the radial pulse is obliterated.

The advantages of this machine are, besides the points I have enumerated, these: that it is the only machine of its kind that registers, not only the pressure of the systole, but also the pressure of the diastole, and it shows the fluctuation of the pulse. The apparatus is so made that the lumen of the glass tube is exactly 3 mm., and that has been found empirically to give the best record of the pulse wave. The systolic pressure is first estimated, and for convenience sake a needle valve is inserted in the course of the tube. Then the finger can be removed from the pulse, and the eye is occupied watching the mercury column, which is allowed to drop slowly until that point is reached where the wave diminishes or ceases. That is the point of diastolic pressure.

The broad band, the firm support and the arrangement of the apparatus with this smaller quantity of mercury gives a lower reading than the Riva Rocci. The average systolic pressure, according to this instrument, is about 115, the average diastole about 70, and the difference between the two, 35, or 50 per cent. of the diastolic pressure, is the average which should be maintained in a fairly normal heart. A variation of 10, 15 or 20 mm. above the 115 need not be considered pathological.

Dr. Fincke well brought out the fact that these are individual instruments, that they are in the hands of individual operators, and that they must not be taken as absolute. We know there are certain people who have a normal temperature above  $98.6^{\circ}$ , as well as those who have a normal temperature below that. These are averages, and in taking readings from them we must take that into consideration. A reading on the Riva Rocci of 150 as compared with 115 on Janeway's instrument need cause no alarm. In the same way the instrument of Gaertner registers a lower pressure—nearly one-half. The pressure which is necessary to obliterate a large artery close to the source of supply, such as the brachial, must of necessity be larger than that which is necessary to shut off one of the digital branches.

#### *Discussion.*

Dr. R. CLARK: The subject of blood pressure is comparatively a new thing. My experience is that these machines are extremely valuable in cardiac and in nephritic conditions, especially in uræmic cases. I remember two or three cases



of uræmia that occurred in the Brooklyn Hospital, where during convalescence we made repeated blood pressure tests, and they showed diminished pressure whenever the patient was on the improve. When the kidneys refused to do their work the blood pressure increased. In three or four instances this blood pressure increased before the clinical symptoms were manifested.

There is another point which the blood pressure machine will give information of when you cannot obtain it by the finger, and that is increased pressure in the radial pulse with sclerosis. When we try the blood pressure machine upon the sclerotic artery, it may be very high or very low. That is usually far from what you would expect it to be. I think that is one of the great advantages of this apparatus.

Dr. E. E. CORNWALL: The subject is very interesting. Blood pressure instruments, of course, are very valuable aids to diagnosis, but it seems to me they lack a certain amount of practical utility. We cannot carry them around with us on our daily rounds. It seems to me by practice for ten to twenty years, that the average physician becomes to a certain extent skillful in detecting blood pressure. He may not detect fine gradations, but he gets a pretty fair idea of them. I do not believe an instrument will ever supplant the finger with the general practitioner.

High blood pressure from its pathological side, of course, is of the utmost importance. It seems to me it is becoming pretty generally believed that the use of tobacco has the effect of producing arterio-sclerosis. No doubt the condition called uricacidemia is a factor in producing high blood pressure. People of middle age often have high blood pressure, and they get it as a result of nephritic conditions.

Dr. F. H. STUART: The papers of Dr. Fincke and Dr. Clark are interesting because they are along the line of scientific study of the heart, but the practical difficulties applied to these instruments of accuracy are very great. I have not used this instrument for measuring blood pressure, but I have had more or less experience with the sphygmograph, where the blood pressure can be somewhat estimated by the weight upon the arm, and you regulate the weight with a certain degree of accuracy.

It seems to me that all these instruments have two very serious drawbacks. One is the acceleration of the pulse and blood pressure due to the influence on the nervous system produced by the exhibition of an instrument with whose use the

patient is unacquainted, and this militates very much against scientific accuracy. Another is that this instrument is used at the height of illness. We do not know what the condition of the patient is in the normal state, and in order to make a proper comparison we must compare the patient ill with the patient well, and not one ill patient with another one.

Instruments of precision are of great scientific value and interest, but we must not drift away from the old and always applicable instrument of the cultivated finger.

Dr. C. L. FINCKE: As Dr. Cornwall says, it is difficult to carry this instrument around to the bedside. The chief use must remain for the office. As they are at present most largely used in chronic diseases, this can be done, because the majority of chronic cases do come to your office. If you want to use it for a particular case, it is not difficult to carry it around. It will easily go in a hand bag.

I do not think the use of the instrument excites the patient very much. In using it in the past I have found that people are very much interested. In some cases, of course, excitement probably increases blood pressure. You can generally judge whether the patient is excited or not. You may take the pressure repeatedly, and the patient usually loses his excitement in his interest in seeing the machine act, just as with the sphygmograph.

Of course, it is not meant that these things shall supercede the finger. It is a good deal of value in training the finger. After using it awhile you can estimate the blood pressure better than if you have not used it. When we use instruments we are apt to rely too much upon them. It is not the only way of judging the pulse. We have our fingers, and we must take into consideration the sounds of the heart, enlargement of the heart, etc. This is only one of the means of estimating blood pressure, which in spite of all drawbacks is more accurate than the finger of a man who has not practiced many years. Then a man of many years practice cannot read the daily variations. He might appreciate the difference between 280 and 105. The instrument will accurately record smaller variations, and that is of distinct value.

Dr. H. G. WEBSTER: I think that Dr. Fincke's remarks cover all that I care to say with one exception. The sphygmograph does not show the actual work that the heart is doing. It simply shows the state of the arteries, and that is well shown in these pictures I have passed around,

where, in spite of an apparently normal pulse picture, the pressure is high. There is apparently no distinct relation that can be appreciated by the finger as to what the heart is actually doing. You can feel what the pulse is doing, you can appreciate the amount of elasticity, the amount of compression, the tortuous feel, you can appreciate whether the artery is sclerosed or not, but you cannot tell from the mere sense of touch exactly how much work the heart is exerting against the peripheral resistance, and that is what these instruments are primarily intended to show, and it is in chronic cases, cases of myocarditis, which do not give gross symptoms, cases of chronic renal disease and chronic arterial disease where the symptomatology is vague, that their principal value lies.

The personal element can be largely eliminated by repeated readings. The patient becomes used to them, and one is surprised to find that repeated readings may be identical. I had that impressed on me strongly in watching the behavior of blood pressure under ether anesthesia, where I took the pressure reading on the day previous, first informing the patient of its purpose and interesting him in the work. Then I took the pressure half an hour before administration and then continuously during anesthesia, and I was surprised to find that while the initial pressure might go up 10 millimeters, it drooped as the interest overcame the nervousness, and even during ether anesthesia, while the heart exerted every activity at first, it speedily dropped to its apparently normal condition and continued so during anesthetics of one-half to one and a half hours. It, therefore, is an instrument of considerable precision, and is not to any appreciable degree effected by neurotic elements in the patient's make up. Any condition of vascular spasm, if such a thing is apparent, can be overcome by a whiff of amyl nitrite, without any damage to the patient, thus overcoming the peripheral resistance due to arterial tension.

### OBITUARY.

JOHN LOUIS JOSEPH GORMLY, M.D.

Dr. Gormly was born in New York City on June 10, 1875, and died in Brooklyn, N. Y., September 6, 1904. His father was James Gormly, of Ireland, and his mother Mary Cassidy, of Pennsylvania. His marriage to Miss Loretto V. Sheils, of New York City, took place on June 20, 1900.

He was educated in the public and high schools of this city, and studied medicine under the direction of John J. Colgan, M.D., graduating M.D.

at the Long Island College Hospital in the class of 1897. This was followed by an internship at St. Mary's Hospital during the years 1897-98. From 1899 he was physician to St. Mary's Dispensary.

Dr. Gormly was a member of the Medical Society, County of Kings from 1900 to date, and the Alumni Associations of the Long Island College Hospital and St. Mary's Hospital.

He was also a member of Berkeley Council, No. 1954, Royal Arcanum; Brooklyn Lodge, No. 22, B. P. O. Elks; Flatbush Council, Knights of Columbus. His funeral was largely attended, services being held at the Church of St. Rose of Lima, Parkville, L. I.

WILLIAM SCHROEDER, M.D.,  
*Chairman of Hist. Com.*

THE CURE OF QUACKERY is the subject of a paper by Dr. A. T. Schofield, of London, published in *The British Medical Journal*, Oct. 15, 1904. The decision of the United States Post-office Department that the use of mails for the distribution of advertising matter of quacks is illegal, has been recognized by the physicians of England as well as those of America as of far-reaching importance. Dr. Schofield believes that we must include at the present time under the term quackery, not only the, in one way, more respectable and old-fashioned patent medicines, but the new, mystic importations under high-sounding names from America. Besides these medical quackeries, there are the surgical bone-setting and orthopedic quacks of many varieties. The use of natural and hygienic remedies, among which may be included many forms of electric currents, electricity used as light and heat, plain or colored; mineral waters, open air treatment, sun baths, rest, massage, medical exercises, curative baths, hypnotism, etc., are not to be called quackery, so long as they are used by the profession in a professional spirit and in a professional manner. They must all, however, come under the head of quackery when used by unqualified men, or if they are advertised unprofessionally, or connected with any sort of fraud or wilful exaggeration. The writer quotes Dr. Hutchison as stating that it ought never to be possible for a patent medicine vendor to say with truth that he had succeeded in curing a case where a doctor had failed. That meant that practitioners must give more attention to the treatment of minor ills than they did at the present time. The remedies suggested include the better education of the educated classes in physiology. Dr. Schofield believes that it is useless to wait for more general education as a cure for quackery, since no superstition seems too gross for educated people to adopt. He further remarks, that the only plan worthy of being called a remedy comes from America, in that the Post-office Department, together with that of Justice, have already analyzed over 100 specimens of quack medicine and have found one cause, at any rate, of their popularity in that they contain from 16 to 44 per cent. of alcohol. They propose to refuse to allow bogus nostrums or those newspapers that advertise them to pass through the post at all: thus striking a blow at their existence.



## Brooklyn Medical Journal.

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*Entered at Brooklyn, N. Y., post office as second-class matter.*

BROOKLYN-NEW YORK, NOVEMBER, 1904.

### PREVENTIVE MEDICINE IN THE JAPANESE ARMY

The medical professor may well afford to assume credit for the ability displayed by the Japanese army medical corps to apply the scientific principles of preventive medicine to the conduct of their armies in the field. The culture of the Japanese army is largely an imported product. The science and art of preventive medicine are the results of the evolution of medicine in Europe and America during the past century. The knowledge of diseases among the Japanese has been acquired largely from the schools of America and Europe. Rightly, we believe the claim has been made that medical science has outstripped that of other professions during the past few decades, but the demand for the highest possibilities of that science in warfare has not come first from a Western people. It was not called for in the South African war, nor in the Spanish-American war, though the knowledge and the possibilities of its application were just as available then as now. The Japanese commanders have called for the scientific application of the principles of preventive medicine in the conduct of their armies, and for reply the medical corps of the Japanese army have set such a standard as we are inclined to believe could not be surpassed by the medical organization of any nation.

From the report of Major S. L. Seaman, read before the Association of Military and Army Surgeons at St. Louis, it is apparent that the services rendered by the medical corps of the Japanese army are superior to any ever rendered in the history of warfare.

The medical and hygienic oversight of the soldiery comprises matters of food, clothing, drinking water and all details of their well-being to an extent never before considered practicable.

There seems to be no exaggeration in the claim of Dr. Seaman that the Japanese are the first to recognize the true value of an army medical corps. Care of the sick and wounded consumes

but a small part of their time. The solution of the greater problem of preserving the health and fighting value of the army in the field is their first and most important duty. The medical officer is omnipresent. "He is with the first screen of scouts with his microscope and chemicals testing and labeling wells so the army to follow shall drink no contaminating water." On entering towns a thorough examination of their sanitary conditions is immediately instituted and infected spots are quarantined by guards. Dr. Seaman states that, long before the outbreak of hostilities, the army surgeon was with the advance agents of the artillery, testing provisions being collected for troops, and as a consequence cases of intestinal diseases, dysenteries and the fevers dependent on improper subsistence and neglected sanitation have no place in the Japanese army. The anti-thesis of most of these favorable conditions is unfortunately found among the Russian troops, and the reports of serious outbreaks of disease are only such as have occurred in armies since the gathering of great armies began.

### THE COUNTERFEITING OF DRUGS.

The gang of swindlers which has been run to earth by the combined efforts of the post-office, the police, the agents of various chemical firms and certain medical men, has been guilty of crimes comparable to few of which we have knowledge.

Besides the various coal-tar derivatives, others such as creosote carbonate and ichthyol have been counterfeited, cheap substitutes for these having been sold under the name and label of houses of the highest reputation.

That the physician should be handicapped in his effort to do the best for his patients by having substituted in his prescriptions drugs utterly worthless, or as is the case with some, markedly depressing to the action of the heart, seems to be a crime for which any but the most severe punishment would be insufficient. It would appear, however, as though few honest retail druggists could have been deceived by this firm of swindlers which did business exclusively through a "post-office box," since the letter heads of the firms carried no other address than this. Such a method of doing business could scarcely deceive even the most unwary.

The whole incident emphasizes our conviction that the physician's oversight of his patients should extend so far as to see that his prescriptions are filled by a druggist in whom absolute reliance is to be placed.

## MEDICAL NEWS.

EDITED BY CLARENCE REGINALD HYDE, M.D.

*It is earnestly hoped that all members of the profession possessing news concerning themselves or their friends, which would interest others, will communicate the same to the News Editor before the 9th of each month. Items for this department should be sent promptly to Clarence Reginald Hyde, M.D., 126 Joralemon Street.*

Dr. Arthur R. Paine announces his removal to Hotel Mohawk, 379 Washington Avenue.

Dr. J. F. Haller announces his removal to 291 Stuyvesant Avenue, corner Hancock Street.

Dr. Joseph Merzbach announces the removal of his office to 198 Eighth Avenue.

Dr. Robt. Stevenson has removed to 97 India Street.

Dr. Robt. B. Anderson has removed to 703 Nostrand Avenue.

Dr. Lewis N. Foote has been compelled to give up his work for a while in consequence of poor health. He will spend the winter in the northern part of the State.

Dr. and Mrs. Z. T. Emery will reside at Boonton, New Jersey, during the winter.

Dr. and Mrs. Louis L. Nichols have returned from an enjoyable visit to England. Besides the well-known places, they visited some of the coasting towns and villages out of the usual beaten track of tourists.

Dr. George H. Parshall, a former Assemblyman, has been nominated as the Republican candidate for the Senate in the Fifth District, Brooklyn.

Dr. and Mrs. Homer L. Bartlett are spending the autumn at the Delaware Water Gap.

Dr. L. Koempel, of 838 Bedford Avenue, returned October 10 from a two months' European tour. While abroad, he visited the chief cities of Central Europe, where he saw much of medical and surgical interest by the way.

During the temporary absence of Dr. Clarence R. Hyde, the editor of this column, we take the opportunity of tendering him the hearty congratulation of his many friends on his recovery from a severe attack of appendicitis. His attack occurred during the last week of September and he was successfully operated upon at the Long Island College Hospital a few days subsequently. He is now out of town recuperating from his illness at Warwick, N. Y.

Dr. Hyde's interest in this column is attested

by the thorough, business-like manner in which it has been conducted under his management. The chief difficulty which the news editor has to meet with is the disposition of the average medical man to hide his light under a bushel. The happenings of a medical man's life are of interest to his fellows, and the Medical News column is maintained to minister to a legitimate want. The news editor would regard it as a favor should the secretaries of societies report to him, at the earliest possible moment the purposed programmes for subsequent meetings. Items of news are constantly at hand, but many are missed that would prove of interest through their failing to reach Dr. Hyde's table.

Dr. W. G. Reynolds has returned from his tour of European travel. Among other courses of study pursued, he spent about seven weeks in the Vienna public hospitals.

At the last regular meeting of the Suffolk County Medical Society held at Riverhead, the following officers were elected: President, Dr. G. A. Smith, Manhattan State Hospital; Vice-President, Dr. W. H. Ross, Brentwood; Secretary, Dr. P. Van Benschoten Fowler, Centre Moriches; Treasurer, Dr. B. D. Skinner, Greenport; Historian, Dr. J. H. Benjamin, Riverhead; Censors, Dr. C. E. Wells, G. T. Fanning and F. Overton.

The autumn meeting of the Suffolk County Medical Society was held at Central Islip, Manhattan State Hospital, Thursday, October 27, at 10.30 A. M. The following programme was presented:

I. Paper: Adenoids in Children as a Cause of Deformities of the Dental Arch. H. H. Young, M.D., Riverhead.

II. Paper: Medical Ethics. Dr. Frank Overton, Patchogue.

III. Demonstrations by the Medical Staff of the Manhattan State Hospital: (a) Nerve Reflexes; (b) Clinic: Aphasia; (c) Clinic: Some Forms of Insanity.

Russell P. Morrison, the son of Dr. Robt. L. Morrison, of this city, who is a member of the senior class at Yale, is pursuing an election course which entitles him to rank as a first year student of the Medical School of that institution.

Dr. W. L. Chapman has been appointed obstetrician of the Bushwick Hospital.

A meeting of the Brooklyn Medical Association was held at 360 Fulton Street, on Wednesday evening, October 12, 1904. The paper of the evening was presented by Dr. E. D. Ferguson, of Troy, N. Y., on "Haste and Delay in Surgical Operations: Both Equally Unwise."



The dinner given to Dr. Johannes Orth, Professor of Pathological Anatomy and Dean of the University of Berlin, on October 3, at the Yale Club, was largely attended by Brooklyn physicians. To Dr. Paul M. Pilcher, who was deeply interested in the affair, a large part of the success of the function was due.

The total amount realized from the fair given by Mrs. Clarence Mackay, at her home on Harbor Hill, Roslyn, on September 24th, for the benefit of the Nassau Hospital is \$10,990. Of this magnificent sum, \$4,000 has been permanently invested as the nucleus of an endowment fund; \$6,000 has been set aside for meeting deficiencies in current expenses and divided into three installments: \$2,000 for the year commencing October 1, 1904, and a like amount for the two next succeeding years; \$650 will be expended in improving and beautifying the grounds about the hospital and the remainder has been paid to the association for current expenses.

Dr. James E. Burns, of Glen Cove, was elected a member of the Glen Cove Board of Education, at the recent election. The medical profession is thus again represented on the board. Dr. Fred E. Wright, new postmaster, served ten or fifteen years on the board and Dr. H. B. Watson, now of Hicksville, also was a member for one or more terms.

Dr. J. P. Tallmadge, for two years the house physician at Nassau Hospital, Mineola, is now filling the position of Assistant Superintendent at the Long Island College Hospital, Brooklyn.

The seventh year book of the Nassau Hospital Association, for the year ending April 1, 1904, is in press and will soon be ready for distribution. A copy may be secured by addressing the Secretary, J. S. Cooley, M.D., Glen Cove.

A reprint of the address to the graduates of Public School No. 76, in the Borough of Queens, by Dr. John H. Barry, of Long Island City, has been received.

A theatrical performance for the benefit of the German Hospital of Brooklyn will be given on the evenings of November 9th, 10th and 11th at the Grand Opera House, Brooklyn. The Committee of Arrangements is under the chairmanship of Mr. Fred E. Heitmann.

Invitations have been issued by the trustees of Columbia University for the celebration on Friday, Saturday, Sunday and Monday, October 28th to 31st, of the 150th anniversary of the founding of Kings College.

The autumn meeting of the Associated Physicians of Long Island was held at Mineola on October 22d. The following papers were pre-

sented: Cardiac Disturbances in Digestive Diseases, Dr. Jacob Fuhs, of Brooklyn; A Plea for the Practical in Obstetrics, Dr. John H. Barry, Long Island City; The Diagnosis and Treatment of Intestinal Perforation in Typhoid Fever, Dr. A. T. Bristow, Brooklyn; Keratitis, Dr. W. G. Reynolds, Brooklyn.

Dr. F. C. Curtis, Secretary of the Medical Society of the State of New York, has submitted the following notice: The Business Committee of the Medical Society of the State of New York has been appointed by the President, Dr. H. D. Wey, as follows: Dr. Henry Flood, of Elmira; Dr. A. Edward Davis, of New York; and Dr. Leo H. Neuman, of Albany. This committee has charge of preparing the programme for the annual meeting of the Society, which is to be held in Albany January 31, February 1 and 2, 1905, and those desiring a place on it will communicate with one of them.

Dr. Darlington, President of the Department of Health of the City of New York, has submitted to physicians the following notice:

Permit me to call your attention to the moral and legal responsibility of physicians relative to the registration of births. The failure of the physician to comply with the law requiring him to register births is attended with serious consequences to the child, who is deprived of the opportunity in many cases to help his parents and earn his own livelihood at a time when he is willing and able to do so; for, upon the filing of a Birth Certificate by the physician in attendance at the time of birth depends:

1st. The admission of the child to the public school at the proper age.

2d. His ability to obtain employment on arriving at the age of fourteen, provided he is unable to furnish other proofs of age.

The new Labor Law, which took effect October 1, 1903, requires the parents of the child to furnish documentary proof before the Board of Health is allowed to issue an employment certificate. In the case of native-born children, the only proof available, besides the Birth Certificate, consists of religious records—baptism, confirmation, circumcision, etc.—but where the parents stand outside of any religious communion, or where they have neglected the ceremonies attached to their former belief, they must depend wholly upon the record of birth.

The physicians failing to comply with the law thus lay upon themselves a serious moral responsibility, besides rendering themselves liable to a fine of one hundred dollars (\$100), recoverable by the Board of Health.

## BOOK REVIEWS.

SYSTEM OF PHYSIOLOGIC THERAPEUTICS. COHEN. Vol. VIII. Rest. Mental Therapeutics. Suggestion, by Francis X. Dercum, M.D., Ph.D., Professor of Nervous and Mental Diseases. Jefferson College. Phila. P. Blakiston, Son & Co., Phila., 1903. Price: Cloth .

This recent work of some 300 pages forms the eighth of a series of eleven volumes devoted to the prevention and treatment of diseased conditions without drugs. Rest, Mental Therapeutics, Suggestions, is the title chosen for Vol. VIII. by its author. The consideration of each of these subjects is taken up separately, thus dividing the work into three distinct parts. The first of these, Rest, deals mainly with the treatment of neurasthenia and hysteria, with their allied conditions, by the "rest" method originally described by Weir Mitchell, and is largely based upon Dr. Dercum's article on "Nervous Diseases by American Authors." The title of the second portion of the book, Mental Therapeutics, explains itself, dealing as it does with the detailed therapy of various psychopathic conditions. The third part, Suggestion, is extremely interesting. Dr. Dercum discusses the various forms under which it has appeared, from the days of Shamanism and Pythonism, Mesmerism and Magnetism, down to Hypnotism, and even Eddyism or Christian Science. The author is a firm believer in the good effects of normal suggestion, but appears to be bitterly opposed to hypnotism, dwelling as he does, at length, upon the possibilities for evil resulting from its practice.

The book, as a whole, will be a valuable one to the general practitioner for its many hints and practical suggestions relating to the care of hysterical and neurasthenic cases which are seen in everyday practice, but which are often so hard to help.

The work is well printed and excellently indexed.

F. C. E.

THE SELF-CURE OF CONSUMPTION WITHOUT MEDICINE: With a Chapter on the Prevention of Consumption and Other Diseases. By Charles H. Stanley Davis, M.D., Ph.D. N. Y., E. B. Treat & Co., 1904. 176 pp. 12mo. Price: Cloth, \$0.75

The subject of this volume clearly indicates that it deals with the hygienic and prophylactic phase of the question. In the preface the author states that the object of the book is to show how consumption from its first beginning to its last stages, before actual decay of the lungs takes place, can be cured in at least ninety-five per cent. of the cases and this without medicine. We cannot call that a conservative statement, neither can we pronounce the book conservative or scientific. We shall name it popular.

INTERNATIONAL CLINICS. Vol. I. Fourteenth Series. 1904. Phila., J. B. Lippincott Co., 1904. 304 pp, 25 pl. 8vo. Price: Cloth, \$2.00.

There is a very important article in this volume on the chlorid reduction treatment of parenchymatous nephritis. It should be carefully studied as it is a record of clinical work. In conclusion it is well to note here that "salt is the dangerous food-stuff in certain cases of parenchymatous nephritis." There is a clinical study of adonidin also which deserves notice. There is an important review of the progress of medicine during 1903 by David L. Edsall, M. D., J. C. Bloodgood, M.D., and A. A. Stevens, M.D., in addition to many carefully prepared papers on various subjects.

THE COMPLETE MEDICAL POCKET-FORMULARY AND PHYSICIAN'S VADE-MECUM: Containing upwards of 2,500 Prescriptions. By J. C. Wilson, A.M., M.D. Third Revised Edition. Phila., J. B. Lippincott Co., 1903, 267 pp. 8vo. Price: \$1.75; Thumb Indexed, \$2.00. Good, but too large for the ordinary pocket.

INTERNATIONAL CLINICS: Quarterly of Illustrated Clinical Lectures and Especially Prepared Original Articles. Edited by A. O. J. Kelly, A.M., M.D., [and others.] Vol. IV, Thirteenth Series, 1904. Phila., J. B. Lippincott Co., 1904. vi, 321 pp., 6 pl. 8vo. Price: Cloth, \$2.00.

It is a difficult task to review a book of this character, as it deals with many subjects. Suffice it to say that they all contain information of value to the active practitioner. Of especial value are the articles on Pneumonia by John Musser, M.D., The Treatment of Chronic Bronchitis, by Thomas A. Clayton, M.D., Subcutaneous Injections of Mercury for Syphilis, by Louis Julien, M.D.

There is much on medicine, surgery, gynecology and obstetrics, neurology, orthopedics, ophthalmology, pathology, valuable for use.

PREVENTIVE MEDICINE: TWO PRIZE ESSAYS, The General Principles of Preventive Medicine. By W. Wayne Babcock, M.D. The Medical Inspection of Schools: A Problem in Preventive Medicine. By Lewis S. Somers, M.D. Brooklyn, Maltine Co., 1904. 230, 54 pp. 12mo.

These essays are valuable additions to the literature of preventive medicine.

ARE WE TO HAVE A UNITED MEDICAL PROFESSION? By Charles S. Mack, M.D. Laporte, Ind. The Author, 1904. 44 pp. 12mo. Price: Paper, 25 cents.

This is an argument in favor of the universality of the law of similars. We must take issue with the author's premise. His argument is ingenious, if not ingenuous. It is defective. What are we to say as to his conclusions?

HOW TO BE SUCCESSFUL AS A PHYSICIAN. Heart-to-Heart Talks of a Successful Physician with his Brother Practitioners. Meriden, Conn., Church Pub. Co., 1902. 123 pp. 12mo. Price: 75 cents.

This book opens with the following spicy remarks: "The great principle of law is to make business for itself, but if a man is without any moral principle (he forgets to mention the woman) the cunning tergiversations of their legal adventures identify him with sharpers and roguery. Of course there are learned legal gentlemen who are ornaments of society and the intellectual benefactors of the country. The majority of clergymen are ordinary commonplace men." Having thus disposed of law and theology he proceeds to deal with medicine. He discourages one from entering the profession saying that "if a young man is capable mentally of gaining prominence in medicine he would probably do much better in any other profession." On top of this he remarks: "The serious progress of our American medical education is obstructed by poor teachers everywhere." After such a display of pessimism we should expect the young men to turn their backs on the professions with the thought that success must be sought for elsewhere.

ON THE SUPPOSED UNCERTAINTY IN MEDICAL SCIENCE, AND ON THE RELATION BETWEEN DISEASES AND THEIR REMEDIAL AGENTS. By Mahendra Lal Sircar, M.D. Calcutta, P. Sircar, 1903. xxxi, 125 pp. 8vo. Price: 1s. 4d.

This is by a practitioner of and a firm believer in homeopathy. That he is drifting into therapeutic nihilism this prefatory remark would make one think—"I am confident that regulation of diet and changes in the environment will occupy a large place in future medical practice than will administration of drugs." Scepticism is a natural sequel to misplaced enthusiasm.



# BROOKLYN MEDICAL JOURNAL

VOL. XVIII.

BROOKLYN-NEW YORK, DECEMBER, 1904.

No 12.

## ORIGINAL ARTICLES.

### HASTE AND DELAY IN SURGICAL OPERATIONS. BOTH EQUALLY OBJECTIONABLE.\*

BY E. D. FERGUSON, M.D.,  
Troy, N. Y.

Without a knowledge of the German language, still in common with all students of modern life, I can recall Goethe's motto: "Ohne hast aber ohne rast,"—that tells us that we can be doing all the time even if not hurrying. Haste in advising operative work means that measures are taken without due consideration of the welfare of the patient, and does not imply only a brief interval of time; while delay may be for the good of the patient or for evil results according to circumstances.

It is fortunate that in the majority of instances of surgical disease, the decision can be made by a competent operator without a special sense of responsibility; but in some cases, and in some classes of cases, the decision must be attended by some doubts, even by those well qualified to judge. The two classes may be represented by those on the one hand who have the *Cacoethes Secandi* and are ready to operate if there be only an excuse for operation, while on the other hand the most numerous representatives are to be found in the ranks of the general, or purely medical, practitioners, who by prejudice or fear defer as long as possible the advice that surgical measures be taken.

The broadening of the field of surgical work during the last generation has been such that it would be impossible to avoid the development of these two classes, from the merits of the subject itself, and occasionally we may fear from motives of personal interest that consciously or unconsciously sways the judgment.

It is my purpose to illustrate these tendencies to over haste or undue delay by two or three instances, and I wish to bring out the evidence in one class of cases that has lately induced me to speed of action when I formerly would have counseled delay.

I will limit my remarks to diseases of the ab-

dominal and pelvic cavities, for those are the great fields for operative measures, though the general principles will apply elsewhere.

The fundamental principles that underlie the consideration of the question of operation or non-operation are first, can we remove the diseased organ or favorably modify the morbid process by surgical measures, and second, will our operative interference be liable to create other morbid processes as dangerous and troublesome, or more dangerous and troublesome than the condition present before operation?

These are serious questions and are not to be answered in an off-hand manner, as by those who for instance say that when the diagnosis of appendicitis is made an operation should at once be undertaken and the appendix removed. I am not going to weary you by going over the appendicular field in all its lines, but I shall dwell briefly on one or two phases of the subject.

I will start with the premise that the great danger we should seek to avoid in abdominal and pelvic work is the induction or extension of peritonitis. Such dangers as shock, hemorrhage, intestinal paresis, etc., I shall not dwell upon, for they are not pertinent in deciding for or against operation in the vast majority of cases, being usually operative or post operative events that cannot be foreseen.

It cannot be too strongly stated that operative interference in the abdominal or pelvic cavities in the presence of an acute inflammatory process is especially hazardous, and general experience shows in such cases a large operative mortality. This is true only in those cases in which the operative measures would be liable to diffuse the septic material to hitherto uninvolved areas, but this occurs especially in cases of acute appendicular and tubal inflammation.

A natural extension of the morbid process from the interior of the appendix or tube to the peritoneum implies on the one hand the death of a patient, and on the other protection from death, and this is no paradox.

It is now so familiar a saying that we welcome the protecting effects of local adhesive peritonitis that I need hardly recall it, but in estimating the

\*Read at the meeting of the Brooklyn Medical Association, Brooklyn, N. Y., October 12, 1904.

factors that will influence us in deciding for or against speedy operation it is on the probable presence or absence of this protective peritonitis that our decision will be based. Hasty, and I believe truly unwise, is the surgeon who will attack by abdominal incision, a case of appendicitis or salpingitis in which the evidence favors the presence of protective adhesions which will wall off the area of disease and allow the virulence of the acute attack to abate so that the character of operative measures may change and the dangers be lessened.

An operative mortality of 15% to 20% in acute pelvic or appendicular inflammation is far beyond the probable danger of the diseases themselves. True, when we come face to face with individual cases of such inflammations we have the uncomfortable reflection that if we do not interfere that special case may end fatally, while interference might bring about recovery. It is our duty, however, to decide on the basis of the probable danger in each case, and if we are to make abdominal section in the acute stage of all cases of appendicular or tubal disease, I am sure statistics show that the deaths would be more numerous than when a waiting course is pursued.

We know, however, that if we can remove the offending appendix for instance, before the inflammatory action has extended to the peritoneum in the vicinity, and before such protective adhesions have formed as to render a search for the appendix a probable means of distribution of the septic material, then we can unquestionably diminish the mortality normally due to the disease by early operation, though the term early operation is entirely relative, and not to be measured by hours or days.

When I have had reason to believe that protective peritonitis existed, it has been and remains my invariable rule to advise a waiting course for either the formation of an abscess or the subsidence of inflammation.

Taking the symptoms usually relied upon for diagnosis in appendicular or pelvic inflammation, namely, pain, fever, tenderness, and muscular rigidity, I will not dwell on the relative importance of each factor, for my paper is not intended as a discourse on diagnosis.

I have noted one fact lately that I have not seen commented on elsewhere, and that is the occasional moderate rigidity of the abdominal muscles when the other signs justified the diagnosis of appendicitis or salpingitis.

Believing that the muscular rigidity represented in a degree the presence of local peritonitis it oc-

curred to me that a small degree or absence of such rigidity would indicate that protective adhesions were not forming, and hence in such cases there was more danger of rupture into a free peritoneal cavity and less risk in operative measures. Acting on this idea, I have within a few months found this notable rigidity absent in seven cases, and in these cases I have proceeded to immediate operation, and have found the appendix in all stages of disease up to gangrene without any notable attempt at the formation of adhesions, and with very limited changes in the contiguous peritoneum.

I believe the observation will prove of service to those who wish to classify these cases for operation.

We cannot state why the proximal peritoneum should inflame and adhere in some cases and not in others, but it is an undoubted fact that the appendix often undergoes gangrene or perforation without being "walled off," and a diffuse peritonitis supervenes unless operation occurs before the contents of the organ escapes into the unprotected cavity of the peritoneum.

I will cite one case, a fatal one, but the first one in which I ventured on an immediate operation on the theory that slight muscular rigidity rendered it probable that protective peritonitis had not developed.

The patient was a man of splendid physique, twenty-six years of age, who was admitted to the hospital in December, 1903, with the history that three days before he was taken with pain at the epigastrium, which on the next day left the epigastrium and centered over the appendix, and was attended by some fever—the "old, old story."

He came into the hospital late in the evening after a car ride of about twenty-five miles, and the undoubted presence of appendicitis without notable rigidity of the abdominal muscles, but with tenderness on pressure, induced me to operate early the following morning.

I found the appendix enlarged, twisted, gangrenous at its free extremity, and only a slight adhesion near the distal end to the omentum, an adhesion so slight that a separation occurred on gently moving the omentum. The appendix was removed, and the stump inverted and closed by a shir stitch, after making a cuff of peritoneum, and then the stump buried by suture in three layers, one inside the cuff, and two outside. Though the peritoneal surface in the vicinity seemed normal, fearing possible infection from manipulations I left a small gauze drain.



The patient never presented an untoward symptom in relation to the appendicular region; the bowels moved on the following day, but there was some fever on the day following the operation of a septic curve, not to be accounted for through the appendicular trouble. Within a day or two thereafter I noticed he was jaundiced, but he was free from pain and slept fairly well. The supervention of irregular chills, the deepening of the jaundice, the absence of symptoms relating to the gall bladder or indicating gall stones soon led me to conclude that he had cholangitis of a virulent nature, and I gave an unfavorable diagnosis to his physician and family, but he lived until January 18th, and about a week before his death the symptoms were so much mitigated that the friends were hopeful.

I was allowed to examine the abdomen, and I found the liver filled with foci of pus, with some perihepatitis, but no peritonitis elsewhere. A very interesting fact to me was my inability to locate the site of the appendix on the cæcum for, though only twenty-five days had elapsed since the operation, the entire peritoneum covering the cæcum was smooth and glistening, and showed no thickening or scar, a finding that has encouraged me in the inversion of the stump.

I regret that our pathological laboratory was out of commission by reason of repairs, so no cultures were made from the liver, but the microscopic examination is noted as showing "a general parenchymatous degeneration of the hepatic cells, fragmentation of the nuclei, and scattered collections of pus cells, especially around the small bile radicles. There is a proliferation of the interstitial connective tissue, also a formation of new biliary vessels." The gall bladder was free from gall stones and was not inflamed, but pus escaped on every section of the liver.

Since that case I have followed in six instances the indication of slight or absent rigidity of the muscles over the appendix, and have in each case found a diseased appendix unprotected by local peritoneal adhesion. All these six cases recovered except one, in which the local systems were favorable, but five or six days after the operation the kidneys ceased to secrete, and he perished a day or two thereafter from uremia—a probable case of ether nephritis, though as an emergency case the urine was not examined before the operation, which was done over fifty miles from my home.

I can only say this sign of slight or absent muscular rigidity as an evidence of the absence of protective peritonitis in cases of appendicitis has

not been called to my attention in my reading, or in any way than by my own observations. I have no pride in priority, however, and have made no special investigation to learn whether it had been noted by others. I only give my experience and will wait for time to settle the questions that may arise.

In these cases I am now in haste to operate, but in most others I would wait.

Now for cases in which delay is unwise. The list would be too long to enumerate all those abdominal and pelvic cases that would be liable to be injured by delay, but there is one broad general principle that guides me, and that is that where there is evidence of tumor or other morbid condition, that is not attended by an acute inflammatory process, and there is no other strongly contraindicating reason, I advise operation, even if the diagnosis is not positive, for in many cases we cannot know all about the trouble without operation, and if the condition proves to be one not relievable by operation, our incision for examination will imply only little risk. I am more and more impressed that we should use every means to learn all we can about our patients before operation, but I am more and more impressed through my experience that many surprises come to us in the course of operative work.

One case will illustrate the danger of undue delay. The patient, a woman, sixty-three years of age, came under my observation about nine years ago, when I removed a large ovarian cyst with recovery.

About two years ago she came to my office with her physician, and I found an irregular shaped tumor in the pelvis, which from its density, and my inability to map out the uterus as distinct from it, I concluded was a case of uterine myoma. As it had developed after the cessation of the menses, I advised prompt operation, but other advice was sought, and for some unaccountable reason medical treatment was advised and pursued for over a year. She then came to me again, but the picture was much changed. There was now a much larger mass, and a history of probable attacks of peritonitis with consequent adhesions presumably extensive and firm, while a weariness and weakness was so manifest as to cause me to hesitate to undertake the operation. Her cachexia, however, was more apparent than real, for her hæmoglobin was 82%—the reds 3,825,000 and the whites 6,400—so I finally agreed at least to make an exploration, which I did on May 10, 1904. On opening the

abdomen I found that the adhesions were very dense and no progress could be expected until a long incision had been made. The tumor could not be satisfactorily exposed until the entire omentum had been ligated close to the transverse colon and then separated downward from off the tumor, which extended deep into the pelvis and up to the umbilicus.

It was finally determined that the mass was polycystic, but that adhesions were nearly universal, and some of the cysts had probably undergone malignant changes. So much had now been done that no choice remained but to try and remove the mass, and it was peeled from contiguous organs as rapidly as possible, for the separation of adhesions gave considerable hemorrhage, which rendered speed important. At the right brim of the pelvis a curious spindle-shaped cyst of about three inches in length and over an inch in diameter at the widest point, was noted. In separating the dense adhesions this was ruptured, and the urinous appearance of the contents led me to investigate more carefully after the main tumor was removed, which was finally accomplished, and found to proceed from the ovary left at the former operation, the womb being senile in size.

On drawing the urine from the bladder, a slight tinge of blood showed that I had entered the urinary tract at the spindle cyst noted, but with the finger in this cyst and a sound in the bladder, I believed I could exclude a diverticulum of that organ, while the extension upwards in the course of the ureter of its cavity showed that I was probably dealing with a dilated ureter.

There was sufficient material along the line of the tear for longitudinal suture in two layers, which I did, and then packed the pelvis and most persistently blood oozing surfaces by a Mickulicz's drain, and sent my patient to bed with little hope of recovery after an hour and twenty-five minutes of such abuse as I had inflicted on the abdominal and pelvic organs, but she progressed favorably and has recovered from the operation.

The query now is, will she have recurrence of malignant trouble, for the pathologist reports malignant changes in parts of the tumor, and I know I ruptured the envelope of some of the cysts that appeared to me to have made extensive advances in a cancerous direction, with a consequent possible infection, though after removal I could find no foci of transmitted disease.

The lesson of such a case is too apparent to call for comment. When I examined her first, the operation would have probably been simple

and attended by little risk, but when I recall the adhesions encountered after it was too late to retreat, I can only wonder that she was taken alive from the table.

How many of us are following the course of delay in cases of pelvic tumors, attacks of gall stone, colic, etc., hoping that an operation may be avoided?

If there be any, let me urge the fact that unless there be good reason for procrastination, the chances are that danger is being incurred.

How frequently this has been forced home to me in old cases of cholelithiasis, where adhesions render an otherwise simple and slightly hazardous operation one of great difficulty and high mortality.

I wish to state with earnestness and all seriousness, that I never start an abdominal section without the feeling that it would be a relief if I could with due consideration of the interests of the patient lay down my scalpel and leave to nature the future charge of the case, but experience tells us that to operate is often the way to relief and cure not otherwise attainable. The painful problems are, when and how. The *how* usually will be settled by each individual operator, but the *when* is a question with which physician and surgeon must both struggle, and happy those who are charged with such problems when they can look back and feel that they have avoided rash haste and unwise delay.

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#### THE DEGENERATIVE CHANGES IN THE MYOCARDIUM WHICH GIVE RISE TO SERIOUS CARDIAC DISEASE.\*

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BY RAYMOND CLARK, M.D.

This paper is based upon the review of 340 autopsies held at the Methodist Episcopal Hospital during the last ten years, 71 of which showed myocardial degeneration. I have selected the different degenerative conditions and associated them with the various acute or chronic diseases which they accompany, giving you, then, facts which cannot be obtained in any other way except at the autopsy table. The various degenerative conditions found were as follows:

Twenty autopsies showed acute parenchymatous degeneration or cloudy swelling. This condition was recognized in many instances by microscopic examination and at other times by

\* Read at a meeting of the Brooklyn Pathological Society, October 13, 1904.



gross inspection. When the latter was depended upon, the heart was found in a soft, flabby, friable state, the muscle pale in color and rather dull. The most interesting feature about these cases is that in all but two the degeneration was associated with some form of toxæmia, the exception occurring in two cases of fracture, one of the spine and one of the base of the skull. The remaining cases were: 7 with lobar pneumonia, 5 with septicæmia, 3 with tubercular cachexia, 2 with œdema of the brain, due respectively to uræmia and tetanus, and one with sarcoma of the spleen. Some authorities state that cloudy swelling is due to a direct action of toxins upon cell protoplasm, and the foregoing facts seem to support this theory.

There were 18 cases of fatty degeneration and infiltration. Under this class I have grouped those cases where there was an abnormal amount of adipose tissue found upon the surface of the heart and extending down between the muscle fibers, thereby replacing the muscle cardiac wall with fat and degenerated muscle protoplasm. The diagnosis was made at times by microscopic examination, which is the only sure method, but when the diagnosis rested upon gross examination the heart was invariably smaller than normal, with excess of fat beneath the epicardium. The fat was found more over the right ventricle. On section the heart muscle was pale in color, and had a yellowish, or yellowish brown hue, flabby in consistency, and showed a greasy surface when the knife was drawn over it.

Six cases were associated with tubular cachexia,

Four with chronic diffuse nephritis, 1 acute parenchymatous nephritis,

Three with cerebral apoplexy,

Two with lobar pneumonia,

One with acute dilatation of the heart.

Hence, tuberculosis has claim upon the greatest number of cases, with nephritis second. None of the persons autopsied were under 30 years, the average being between 40 and 60.

I have obtained the clinical history of the case of acute dilatation which died very suddenly, and have made camera lucida drawings of the wall of the heart in order to give an idea of how these cases of fatty change develop and terminate, and to show you how the heart wall is infiltrated with fat. The case was that of a male, 36 years of age, drummer by occupation.

Family history negative; father and mother both dead.

Previous personal history, usual diseases of childhood. During his early life his habits were

rather irregular, in that he used tobacco freely, ate irregularly, and took moderately of alcoholic beverages. He was always of underweight. Six years before entering the hospital he suffered from an attack of syncope, followed by dyspnoea and slight precordial pain. From the time of this initial attack to the time he entered the hospital for acute appendicitis he suffered more or less from slight syncope and pains in left chest, especially on exertion. After entering the hospital his physical examination showed weak heart sounds, with a tendency to a cyanosis of the extremities and apparently a normal sized heart. Patient had his appendix removed and made an uneventful recovery. On the twenty-first day after operation he was allowed to sit upright. It was but a few minutes after this that he was seized with a severe attack of cardiac syncope from which he died shortly. Free stimulation seem to have no effect upon the general cyanosis and weakened heart. At autopsy the heart was found to be smaller in size than normal, stopping in systole. It showed an unusual deposit of fat in the wall of the right ventricle, little fat in left. Right heart wall was much thinned, especially about the apex, and cavity dilated. Left ventricular wall showed microscopically fatty degeneration with little infiltration. The valves of the heart were normal.

Eighteen cases of fatty degeneration without infiltration were found. These cases are only recognizable to any degree of certainty by microscopic examination. However, the gross appearances may often be fairly reliable; in the latter instance, the muscle is somewhat paler than normal, soft and friable in consistency, and simulates cloudy swelling very closely; however, the fatty degeneration is more apt to occur in patches, whereas cloudy swelling is usually a diffuse condition.

Four cases were associated with lobar pneumonia,

Four with chronic nephritis,

Three with acute cardiac dilatation,

Two with tubular cachexia,

Two with septicæmia,

One with typhoid fever,

One with chronic valvular heart disease,

One with ulcer of the stomach.

These degenerative cases are associated with toxic diseases of longer standing than those of the acute parenchymatous group. This corroborates the idea that the cloudy swelling often precedes the fatty degeneration. In the cases of shorter toxic duration there was not time enough

for a fatty change to develop. That three cases occurred with acute cardiac dilatation shows how serious the condition is, if it is of a progressive

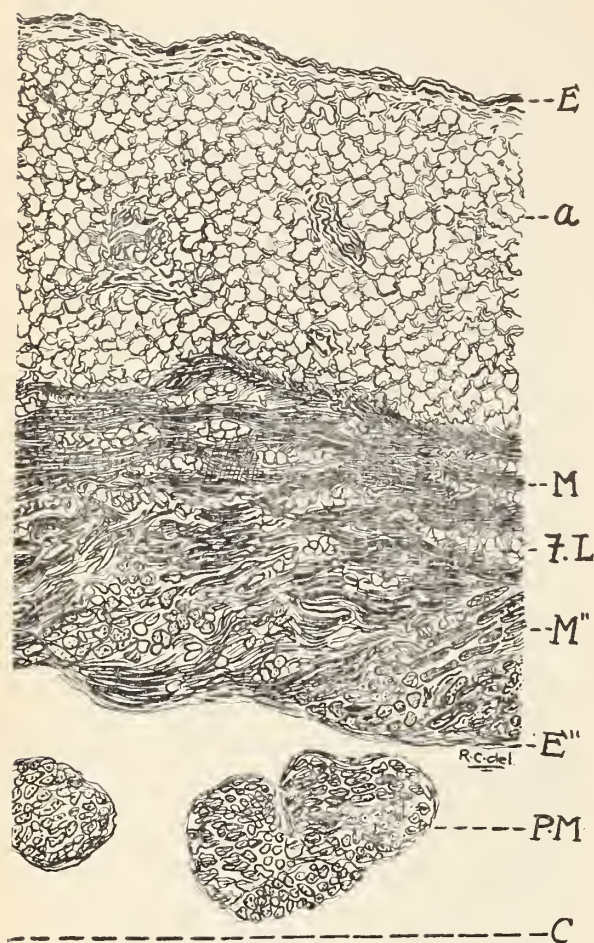


Fig. I. Low power (B. & L. objective  $\frac{2}{3}$ , ocular No. 2) camera lucida drawing of the right ventricular heart wall. Heart showing marked fatty degenerative changes with dilatation. E. Epicardium; A. Adipose tissue; M. Bundle of muscle showing marked fatty degenerative changes due to pressure from the overlying fat; F. I. Infiltrating fat; M'. Heart muscle less compressed but shows fatty degeneration; E''. Endocardium; P. M. Papillary muscle; C. Chamber of right ventricle.

nature. The process gradually weakens the heart wall and dilatation must sooner or later follow.

Should the blood pressure not rise rapidly and should there not be sudden strain upon the cardiac wall, we get a slowly dilating heart and perhaps a partial compensatory hypertrophy; but should there be a sudden rise of blood pressure or a severe cardiac strain the heart will dilate and death often ensues.

There were 6 cases of fatty infiltration without degeneration; 2 of the cases occurred with phthisis; one case each with aortic stenosis, chronic diffuse nephritis, septic pneumonia, and hæmatopneumothorax. Although no fatty degeneration was detected in this group, it is more

than probable that at least some areas in the heart muscle contained more or less muscle fiber degeneration, this being caused by the pressure of the infiltrating fat. It will be noticed that these cases of infiltration are accompanied in every case by a disease which causes an interference with the proper oxidization of the blood. The heart was smaller than normal and the fat occurred over the right ventricle, hence a weak heart to force the blood through the lung.

There were 4 cases of brown atrophy. One in a case of chronic nephritis and lobar pneumonia,

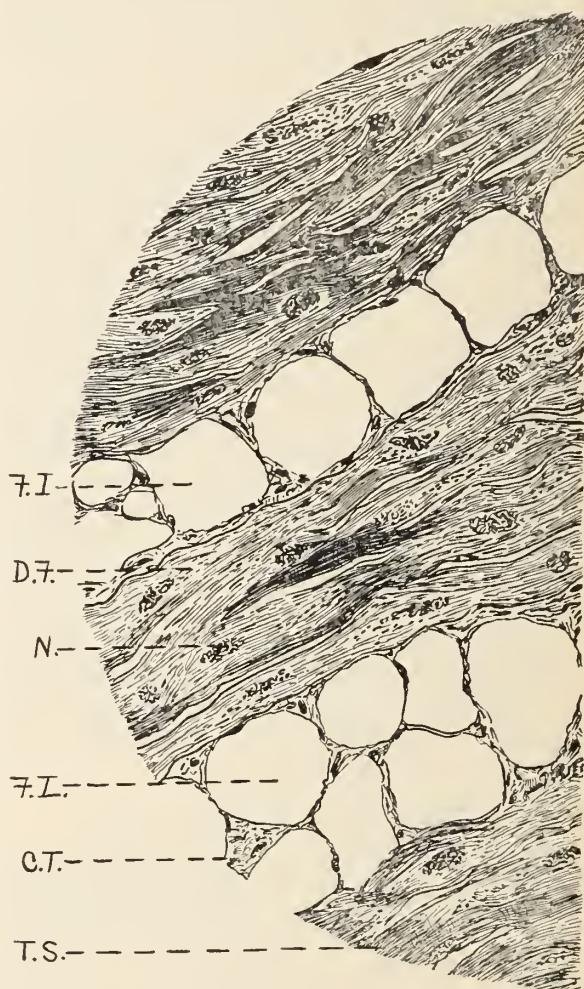


Fig. II. High power (B. & L. objective  $\frac{1}{3}$ , ocular No. 2) camera lucida drawing of muscular wall of right ventricle in a heart showing marked fatty degenerative changes. F. I. Shows two areas of fat tissue compressing a bundle of muscle fibres; D. F. Droplets of fat situated at either pole of nucleus; N. Nucleus to degenerated heart muscle fiber; C. T. Connective tissue supporting the fat; T. S. Muscle fiber showing some of the transverse striation, but most of them are lost.

1 with acute uterine sepsis, 1 with subphrenic abscess and sepsis, and 1 with fibroma uteri and operation. In all the cases there was more or less of an increase of fat beneath the epicardium.



In the 2 cases of sepsis, there was fatty degeneration. The heart was a trifle under size, and on cut section gave a brownish appearance. This color is due to a pigment deposited usually about the nuclei of the muscle fibers. This condition of atrophy is one of slow development. It is stated by many authorities that it is caused by an insufficient blood supply, as for instance a partial obstruction of the coronary arteries. However, in all the cases the coronaries were of normal size, showing no signs of stenosis. The age of the persons varied from 32 years to 60.

One case of amyloid degeneration of the myocardium accompanied tuberculosis of the spine and amyloid degeneration of liver and kidney. This case was that of a male, 29 years of age. The heart was larger than normal, pale in color, and showed some œdema in addition to the amyloid change.

One case of capillary ecchymosis into the wall of the left ventricle was associated with œdema of lungs and brain, and acute congestion of kidneys. The heart was normal in size, the muscle a trifle pale in color, save at points of punctate hemorrhage. These hemorrhages were not only beneath the epicardium but extended into the myocardium.

Two cases of secondary carcinoma of the myocardium occurred, secondary to carcinoma of the lung. In one case the primary carcinoma was situated in the upper lobe of left lung, the metastatic growth in the myocardium was limited to the left ventricular wall. In the other the primary growth was at the right apex with metastatic deposits throughout the heart. The intensity of the metastatic growths in both instances occurred just beneath the epicardium.

There was 1 case of tuberculosis of the myocardium; this was secondary to tuberculosis of the pericardium and pleura. Microscopic examination showed the tubercles most pronounced just beneath the epicardium.

#### CONCLUSIONS.

1. That in the early course of toxic diseases, sepsis, and cachectic conditions, acute parenchymatous myocarditis is more than apt to develop; that, should the toxæmia continue the cloudy swelling usually develops into a fatty degeneration.

2. That persons suffering from fatty or parenchymatous degeneration of the myocardium should have their blood pressure watched very carefully so that it may be kept low.

3. Sudden cardiac exertion or sudden rise of blood pressure is prone in especially fatty degeneration to cause acute dilatation of the heart, resulting either in death or serious cardiac disease.

4. That in all the autopsies of fatty degeneration and infiltration the valves were in a normal state; this is an important factor to be remembered in making diagnosis of cardiac lesions.

5. Fatty hearts are normal or under size generally.

6. Fatty heart often is associated with atheromatous changes and cerebral apoplexy.

7. That nephritis or poor renal elimination is prone to produce fatty degenerative changes.

8. That chronic diseases which cause an interference with the proper oxidization of the blood cause fatty degeneration of the myocardium.

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#### THE RELATION BETWEEN SYSTEMIC DISORDERS AND SKIN DISEASES.\*

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By JAMES MACFARLANE WINFIELD, M.D.

The skin is the great index of the body, upon it is faithfully portrayed the health or disease of the whole economy; any irregularity or disorder of the nervous system, the intestinal tract or the pelvic organs are sure to be made manifest upon the skin in some form of blemish or disease.

The relationship between the skin and the general system is markedly shown by the eruptions of the acute eruptive fevers, like smallpox or scarlet fever. Here the cutaneous manifestation is the visible evidence of the workings of the systemic toxæmia, we also see the same thing in the erythemas and rashes of erysipelas, diphtheria, typhoid fever and syphilis. In these diseases the skin eruption is produced by the specific organisms or their toxins circulating in the blood. In the ordinary cutaneous affections the systemic diseases or organic disorders produce their effects in a variety of ways—reflexly through the nervous system, by alterations in the texture of the skin or by functional and structural cutaneous changes.

The intimate relation between the stomach and the cutaneous covering of the face is demonstrated by the flushing often observed during the process of digestion.

If the stomach becomes inflamed (acute indi-

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\* Read before the Queens-Nassau Medical Society, November, 1903.

gestion) this flushing may become an erythema more or less chronic in character, and if the digestive disturbance continues, chronic catarrhal changes may take place in the skin.

Recently I have seen a number of patients with a peculiar eczematous eruption on the face, following the ingestion of fish that had been frozen (cold storage).

The histories were as follows: From two to four hours after eating a fish dinner they began to suffer from indigestion; some of them were decidedly sick, while others simply felt uncomfortable; eight or twelve hours after the onset of the gastric symptoms the skin of the face and neck became red and swollen, it burned and itched; in a short time the inflamed area was covered with vesicles somewhat larger than those of eczema, quite similar to those seen in poison ivy, although smaller and more evenly distributed; the vesicles rapidly evolved first into pustules and then into crusts, resembling in that stage the impetiginous eczema often seen on the heads and faces of infants. All of the patients were subjects of acne and seborrhœa which might have had a determining influence in producing the skin phenomena.

It is fair to assume that eating the spoiled fish was in some way responsible for the cutaneous outbreak, for all of the patients had the same systemic and dermatological symptoms.

While the ptomains from the decomposed fish was not in great enough quantities to cause grave gastric and intestinal symptoms, it was sufficient to produce an effect upon the skin made susceptible by a previous acne and seborrhœa.

The skin diseases seen during the course of a chronic indigestion are, acne, rosacea and a variety of chronic eczema; these diseases are due to the long continued irritation and sub-acute inflammation of the gastro-intestinal mucous membranes which prohibits the perfect metabolism and assimilation, in turn the functions of the liver and kidneys become impaired and the skin in the endeavors to assist these organs becomes irritated and as a result these various skin diseases occur.

Pelvic disorders in either sex produce effects upon the skin. In early puberty acne is a very common symptom of retarded menstruation. Rosacea is seen in females with retroverted uteri or occluded tubes.

The sexual hyperesthesia of the young pubescent male has, perhaps, more to do with the production of acne than any other factor.

An attack of gonorrhea has been known to

bring out a crop of acne papules on a skin previously free from all blemishes.

A tight stricture, or an enlarged prostate will write their existence upon the face in the form of rosacea.

Constipation or an occlusion of the intestines low down in the pelvis is frequently the cause of simple acne in the young, and of erythema and rosacea in the older subject.

Eczema affecting the face is constantly met with in females who have some uterine disorder. Hebra was, perhaps, the first to point out the fact that various cutaneous diseases were the sequel and accompaniment of gynecological disorders.

Some years ago I made a special study of this subject with a view to satisfactorily establishing the question of how much reflexes from the female genital had to do in producing facial eczema.<sup>(1)</sup>

All the cases observed were over twenty-five years of age; most of them were married and had had children; the general condition of the patients was bad; they were anæmic, subject to headache and backache; the acute vesicular eruption was always on the face and neck, it ran a rapid course, going through the various evolutions in thirty-six hours; in many instances it would remain quiescent until the next menstrual period, when there would be a fresh outbreak.

In making these studies I had the assistance of competent gynecologists. All of the twenty-five cases examined were found to have some disorder of the uterus or adnexa. Attempts to cure the skin disease by ordinary methods failed, but when the genital apparatus was put in a healthy condition the eczema cleared up by the aid of the simplest application.

The influence of the nervous system upon the course of any disease is known to all, particularly is this true in dermatology.

The most frequent neuro-cutaneous disturbance for which the general practitioner is consulted is the simple acute erythema of the menopause—the so-called hot flashes—this phenomena is undoubtedly due to some disturbance of the sympathetic nervous system. The menopause erythema is often the forerunner of rosacea, especially that variety in which the enlarged veins (telangiectasis) predominate.

Urticaria is another essentially neurotic skin affection; the cause of hives may be either direct or local, indirect or reflex. Under the first is placed the urticaria that is produced by the bites of insects. In susceptible persons a single bite of a mosquito is sufficient to cause an outbreak



of wheals in parts of the skin far remote from the original lesion. The irritation is conveyed along the peripheral sensory nerves, causing a reflex urticaria.

Indirect irritation acts chiefly through the gastro-intestinal tract, although disturbances of the pelvic organs seem, in some cases, to provoke an urticaria. Some women always have an attack just before the menstrual period; the same phenomena has been observed during pregnancy and lactation. Anxiety and worry have also been noted as a factor. Urticaria is sometimes a direct symptom of diseases of the nerves, as, for instance, locomotor ataxia.

Mention has already been made of eczema being reflected upon the fact from a disordered genital tract. It is well known that many writers on pediatrics recommend circumcision for infantile eczema, this surgical procedure probably does good in a limited number of cases, but if the physician were to study the child's diet, and thereby prevent gastric reflexes, it is more than probable that the curative results would be more satisfactory than from circumcision.

The influence of the nervous system is also seen in the production of herpes zoster, vitiligo, scleroderma, dermatitis herpetiformis, puritis, pemphigus, etc.; I recently saw a case of pemphigus that could be directly attributed to severe and continued nerve shock.

Disorders of the liver, gall bladder and kidneys produce an impression on the skin. We have all been called upon to combat the intense pruritis of jaundice. Many cases of eczema will yield to treatment after attention has been directed to the liver; examination of the urine in these cases will generally reveal evidences of faulty metabolism. Some forms of skin eruptions are frequently met with in diseases of the kidney, as for instance, eczema, purpura and, toward the close of chronic nephritis a grave form of erythema, the latter is of serious import indicating profound poisoning of the system.

The cutaneous manifestations of diabetes cover a considerable range of diseases; the most prominent are pruritus, furuncles, and carbuncles.

An eczematous dermatitis affecting the flexors, the genital, anal and inguinal regions should excite suspicion of glyco-seurea, especially if the patient complains of depression, thirst and constant desire to urinate. Examination of the urine in such cases will often show the presence of sugar.

One of the most interesting cutaneous mani-

festations of diabetes is the eruption known as xanthoma diabetecorum. The first observer to report a case of this extremely peculiar disease was Mr. Malcolm Morris, of London. <sup>(2)</sup>

The eruption consists of scattered or grouped papular or nodular elevations in the skin, the base of the lesion is slightly reddened, the apex yellow or yellowish white, the subjective symptoms are slight itching or pricking, except when the nodules are large, then there may be actual pain when they are pressed upon; the papules are from a pin head to a split pea in size, either grouped or discrete in distribution. The eruption may invade all parts of the body, although the extensor surfaces of the forearms, elbows, knees and the back are the parts generally affected. Examination of the urine will always show sugar in varying amounts, and if the patient is put upon the proper anti-diabetics and medicine the skin eruption will lessen, and in many instances clear up altogether, returning again when the treatment is withdrawn.

The occurrence of cutaneous manifestations during the course of rheumatism has been noted by every practitioner; the commonest is purpura, and a more uncommon one known as peliosis rheumatica is a combination of purpura and erythema multiforme; erythema nodosum has also been observed, and a few cases of angio neurotic oedema have been reported.

While rheumatism with cutaneous complications is more or less grave, there never has been a fatal case reported; in fact, Osler states that they usually do well. Just how rheumatism produces its cutaneous effect is not clearly understood; micro-organisms have been found in some of the graver cases of erythema multiforme rheumatica, and it is fair to assume that since a bacillus of rheumatism has been demonstrated the skin lesions could be the direct result of the organism itself or its toxins.

A number of skin diseases have been observed as a direct result of malaria; among them are erythema multiforme, urticaria, angio neurotic oedema, herpes simplex and zoster. While some or all of these skin diseases have been seen ever since malaria was a recognized entity, it is only recently that any attempts have been made to demonstrate whether these lesions were epiphenomena or if the malarial parasite was the causative factor.<sup>(3)</sup>, <sup>(4)</sup>, <sup>(5)</sup>.

The skin phenomena accompanying Graves' disease has been written upon by a number of careful observers; perhaps the first to put the subject in

proper shape was Dore, an English dermatologist,<sup>(6)</sup> who gave a report of lucodermatous and other skin changes coexistent with exophthalmic goitre and also a complete survey of the literature on the subject.

At the twenty-sixth annual meeting of the American Dermatological Society, Dr. J. Nevins Hyde<sup>(7)</sup> presented a paper upon this subject; the dermatoses which he observed were pruritus, sweating of the head and face, hydrosystoma, telangiectasus, enlarged capillaries and angio-neurotic œdema. Other observers have seen instances of pigmentary changes, myx-œdema and scleroderma. It is easy to understand why these skin disorders accompany Graves' disease, for the vaso-motor disturbances attending this variety of thyroid enlargement is sufficient to cause many changes in the skin, both structural and functional; tachycardia could easily cause the localized sweating and this in turn produce the hydrosystoma.

Some years ago I reported an interesting case of ichthyosis neonatorum where there was complete absence of the thyroid, as proved by autopsy.<sup>(8)</sup>

Without multiplying further instances, I think you will bear me out in saying that the relation between skin disease and many of the general systemic disorders is very close, and if one were to observe the skin closely during the course of almost any illness he would be rewarded by seeing many phenomena, for the cutaneous covering is much like a sensitive photographic plate, always ready to portray any departure from the normal. Many skin diseases are but symptoms of some systemic disorder or poison or the indicators of deranged internal organs.

In closing, I wish to express my gratitude for the honor of having been asked to read a paper before this Society.

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#### DIAGNOSIS OF ECTOPIC GESTATION.

By A. M. JUDD, M.D.,

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A mistaken diagnosis when ectopic gestation is the existing condition in a patient has resulted in many fatalities.

The condition of these cases when seen by the consulting gynecologist is usually after a primary; here the author includes tubal abortion, or secondary rupture.

The responsibility for these deaths can be laid at the door of whoever first sees the case, usually the general surgeon. If one would only bear in mind the frequency with which the condition occurs, and that any irregularity of the menstrual flow, or cessation or absence of the flow, with subsequent pain in the pelvis, or, above all, that any apparent miscarriage, may be an ectopic gestation, he would, having the interests of his patient at heart, sooner have consultation and thus either divide or place the responsibility. This responsibility should rest upon the gynecologist, who meets fifty cases where those in general practice meet one. The author does not intend to convey the impression that the diagnosis is easy, quite the contrary, as will appear later; but he does say that "Suspicion is conviction."

In making your diagnosis (*a careful history is the most important element, and without it an examination is of doubtful value*), you are called to see a patient who has always been regular in her menstrual periods until at some particular period the number of days that she flows have been lessened and the flow has been scanty. In patients habitually irregular this symptom is not of any value unless taken in conjunction with the other symptoms. She may be seized with pain located anywhere in the abdomen, but usually in the hypogastric, or iliac regions, or even in the back, at a time varying from three to twelve weeks subsequent to the abnormal period or amenorrhœa. This pain is of a tearing, shooting character, and usually very severe. Is described by patients generally as though a knife was sticking into them. The pain comes on usually during some muscular effort, as at stool, getting on a car, etc. May be so severe as to cause the patient to go to bed and request the services of a physician, or it may pass over without aid, the patient believing it to be an intestinal colic. Pain of the above character is sometimes preceded by a dull aching pain in the flank. These symptoms may be accompanied with tenesmus, or irritability



of the bladder, or both. Rectal tenesmus is also found in many cases, being found in those cases where the hemorrhage so gathers as to press upon the rectum. At this time a rupture of the tube may take place and bleeding occur between the two layers of the broad ligament, or into the free peritoneal cavity, or there may be a so-called tubal abortion. There may or may not be a bloody discharge from the uterus. If it occurs, the patient is thought many times to be aborting. This is especially dangerous where the bleeding is between the two layers of the broad ligament, as here not enough blood is usually lost to give the classic symptoms of internal hemorrhage, and many of these patients are cured, thus making a bad matter worse.

The pain accompanying the primary rupture of the tube and hemorrhage into the peritoneal cavity give the classic symptoms of this condition set down in the text-books and which can hardly be mistaken; but this paper is added to those that have been written during the past ten years, as a plea for early diagnosis and the avoidance of just such a dangerous result.

As causes, many lay great stress upon sterility. The majority of the author's cases have occurred in those already matrons.

The fact is, we do not know the cause.

The ordinary symptoms of pregnancy may be exaggerated, or may be absent. If a patient has suffered from nausea during previous pregnancies, it is apt to be much worse than usual. In the language of Parry, in his treatise published as long ago as 1876, "The pregnancy is a stormy one."

A combination of ectopic gestation and an intra-uterine pregnancy will render a diagnosis extremely difficult.

There may be a febrile condition present; a rise of temperature a few hours after the onset of symptoms does not exclude a diagnosis of collapse from hemorrhage. The nearer the uterus the rupture occurs the greater the amount of blood lost.

The only case the author ever lost was one of interstitial pregnancy which was seen by two physicians within a period of thirty-six hours, the rupture occurring before the first one saw the case. The patient came to the operating table about forty-eight hours after the occurrence of the rupture and was dead before the operation was completed.

Physical Signs: The presence of a swelling behind, in front, or to one side of the uterus, with

slight enlargement of that organ, together with an irregular hemorrhagic discharge, sometimes of a brownish color, especially if accompanied with a suspicious history, i. e., some change in the menstrual history, pelvic pain or uneasiness with perhaps feelings of faintness or nausea at times is sufficient evidence upon which to base a presumptive diagnosis of ectopic gestation.

Differential Diagnosis: Supposed, threatened or actual abortion is the condition most likely to be mistaken for ectopic gestation, but here there is a greater flow of blood from the uterus. The pains are not as great as in ectopic gestation, and the frequency and character of the pulse is not affected as much.

With an intrauterine pregnancy complicating an ectopic gestation—of which we may be made suspicious by the occurrence of intraabdominal pain during the earlier period of gestation—an extremely careful pelvic examination, best with the patient anesthetized, is our only resource.

Fibroids of the uterus, specially a subperitoneal fibroid with a slender pedicle, depends upon the history and physical findings, the fibroid being much harder than the tumor presenting by distension of broad ligament with blood and not easily mistaken for fluid free in the peritoneal cavity.

Tubo-ovarian Abscess and Salpingitis: History of an inflammatory process. A rupture of an acute salpingitis, especially following a miscarriage, is very liable to be mistaken for ectopic gestation, as the history is very similar—both being acute conditions. You can only depend upon the general appearance of the patient who, having pus in the abdominal cavity, presents a septic appearance, and the irregular rise and fall of the temperature.

Ruptured Dermoid Cyst: Symptoms of shock instead of hemorrhage.

Simple ovarian cyst may, if pedicle becomes twisted, be easily mistaken for ectopic gestation. The author has seen this occur in one case, but in a patient of an habitual irregular menstrual habit. Ovarian cyst is usually movable.

Intra-ligamentous Cyst: History extended over a long period.

Malpositions of the uterus, especially retroflexion, have been mistaken for this condition, but a carefully taken history and a thorough examination, pulling down the uterus with a tenaculum in order that the fundus may be more easily palpated, should exclude error.

Appendicitis: Temperature usually above normal. Pulse inflammatory, not that of hemorrhage and shock—only the muscles of the right side, especially the right rectus, show rigidity.

Floating kidney, or spleen with twisted pedicle, can be palpated and usually can be returned to their natural bed.

Malignant intraabdominal growth with free fluid in the peritoneal cavity: Anemia and emaciation with long history.

To illustrate the case of diagnosis in certain cases and its difficulty in others, the author cites the following cases:

Case A.—Mrs. M. V., age 28, birthplace U. S. Operation June 22, 1902. Incision through tissues of posterior vaginal fornix and removal of a large quantity of old blood clot. History of case as follows:

Previous personal history: Married November 28, 1901; typhoid fever some years ago; pneumonia three times; inflammation of the bowels nine years ago. Menstrual history: Began at 18 years; did not become regular until after 20 years of age; flowed 4-7 days; pain before first and second days. Since operation and subsequent treatment, pain first day only.

History of present illness: Was unwell regularly after marriage until May, 1902. Flow commenced as usual about the middle of the month, but the flow continued until the time of the operation by the author of the paper. During this period she was treated by two physicians, the last one curretting her on June 15th. Had run a temperature, the highest point reached being 104° F.

Physical examination: Uterus pushed forward against the symphysis by a fluctuating mass occupying the cul-de-sac of Douglas.

Remarks: Expected to find this fluid to be pus. From findings and previous history have no doubt as to a correct diagnosis having been ectopic gestation.

Case B.—Mrs. C. L. W., age 32 years, birthplace U. S. Operation December 9, 1902. Laparotomy, cystic tumor of left ovary, size of a grape fruit and with a twisted pedicle, removed.

Previous personal history: Married June 10, 1898; always well. Menstrual history: Began at 14; regular every twenty-eight days, lasting four days; no pain. April 16, 1899, gave birth to twins. After this was never regular; time would usually be anticipated by anywhere from seven to ten days; flow would usually cease on the fourth day for twenty-four to forty-eight hours, and then reappear for two or three days. Flow

was profuse, and occasionally clots would be passed. Dull pain in the lumbo-sacral region.

History of the present illness: December 1, 1902, had a slight show lasting for twelve hours. December 3, 1902, was seized with severe pain in the lower abdomen, sufficiently severe to cause her to faint. December 7, 1902, had a milder attack.

Physical examination: Tender, fluctuating mass to left of the uterus.

History subsequent to the operation: December 12, 1902, three days after the operation, the patient began flowing, and on December 15, 1902, aborted, the product being a fetus of about four weeks' growth. Menstruation has since been perfectly regular and painless.

Remarks: This case could easily have been diagnosed as ectopic gestation, as in fact it was by one of the examining physicians.

Case C.—Mrs. E. E., age 35 years, nativity Germany. Operation July 1, 1903. Posterior vaginal section, followed immediately by laparotomy. Peritoneal cavity full of clotted and fluid blood. Hemorrhage from the right tube, which was ruptured about its middle and from which the fetus extruded. This with right ovary was removed.

Personal History: Negative. Menstrual history: Began at 16 years; regular monthly type lasting four days; no pain. History of present illness: Last menstrual period April 24, 1903, the same as previous menstruations. During the last five weeks has had morning nausea, dull aching pain in the right lower abdomen, and irregular genital bleeding.

Remarks: This patient was a large, fleshy, German woman, and physical examination was very difficult—consequently the posterior section preceding the opening of the abdomen.

Case D.—Mrs. C. L., age 30 years, nativity, Italy. Operation August 31, 1903. Posterior vaginal section with removal of large quantity of old blood clot.

Previous Personal History: Married at 16 years of age. Six children, the oldest 13 years of age, the youngest 6 years; otherwise negative. Menstrual History: Began at 13 years. Regular, every 28 days. Duration, 4 to 5 days, no pain. History of present illness. Last menstruation, latter part of May, 1903, same character as usual. Said to have miscarried three weeks ago. Since then has had irregular pains in lower abdomen which have latterly increased in severity.



Physical examination: Tenderness over whole lower abdomen.

Vaginal examination: Shows uterus pushed forward by a semi-solid mass in the cul-de-sac.

Case E.—Mrs. A. K., age 27 years; nativity, United States. Operation October 23, 1903. Laparotomy, removal of fluid and clotted blood from the peritoneal cavity. Removal of left tube and ovary with fetus.

Previous personal history: Married 4 years. Has had two miscarriages; last one, year ago.

Menstrual History: Began at 15, always regular, lasting 6 or 7 days.

History of present illness: Regular menstrual period, coming on September 21, 1903; was very scanty, flowing only 2 days when should have flowed at least 6. Nothing out of the ordinary occurred until October 21, 1903, when, on going to stool, she was seized with sudden sharp pain in the left ovarian region. Retired to her bed and was seen that evening by her physician, Dr. Edgerton, of Manhattan, who referred her to me. He made the diagnosis of ruptured ectopic gestation and she was transferred to the Long Island College Hospital. Saw her the next day, October 22d, and she plainly showed the symptoms of hemorrhage and shock. Dr. MacNaughton, who examined her with me, was able to make out fluctuation in the abdominal cavity. As symptoms had, according to description of doctor, improved somewhat since the night previous, determined to postpone operation, allowing partial recovery from shock. Whether this should always be done depends, in the opinion of the author, upon the conditions surrounding the patient. If she is in a hospital where she can be watched intelligently and operation done at short notice, wait; otherwise operate.

It is not the intention of this paper to take up the question of treatment. There is only one method—operate.

The question of when to operate has been considered.

The above cases have been taken at random from my history books to show that first your diagnosis should be made; as is shown by their recital a tentative diagnosis is sufficient to dictate operation.

One should never do a posterior vaginal section when this condition is suspected, unless prepared to go into the abdominal cavity from above without any delay. If you remove your patient from the table with ever so feeble a radial pulse, she will recover. Have seen recovery when the radial pulse could not be felt.

## FISSURE IN ANO.\*

BY EARLE H. MAYNE, M.D.

Owing to the limited time I have at my disposal for the presentation of this paper, I can only touch briefly upon the more important points of the subject.

The lesion referred to by the above title has been given various names by different authors; irritable fissure, irritable ulcer, intolerable ulcer and painful ulcer, all referring to the same disease, the characteristics of which are a peculiar and intolerable pain and spasm of the external sphincter. It is an ulcer or fissure involving the mucous membrane of the radial folds over the sphincter muscles, rather superficial as a rule, but in old cases extending into the muscular tissue underneath. The most frequent location is at the muco-cutaneous junction, or Hilton's white line, and posteriorly, usually in the right or left quadrant, while it not infrequently is found at the posterior commissure. It is rarely seen in the anterior half of the anal outlet.

The influence of sex has a probable bearing on its causation. From the observations of a very large number of surgeons, it is found somewhat more frequent in women, in the proportion of about three in women to two in men.

It is usually single, but at times two and even three distinct fissures are seen belonging to the painful type. The multiple variety of anal fissure as a rule is not painful and is due to some constitutional cause as syphilis, tuberculosis, atrophic catarrh or pruritus, and therefore cannot be included in the above class.

The shape of this lesion is usually elongated and frequently irregular. This, however, is not at all a distinguishing feature, as it may resemble closely those ulcers found in the same location but due to general diseases. The etiology of this type is probably always traumatism. Constipation with its hardened fecal masses is usually the exciting cause. This fact explains its greater frequency in women. Of course any traumatism about the anus resulting in laceration of the mucous membrane may be the starting point.

Ball, of Dublin, believes that practically all of these cases are caused by hard feces tearing the valves of Morgagni and in that way making the initial point. Careful observations have undoubtedly proved this theory to have a strong basis of fact. Certain it is that these valves are most prominent on either side of the posterior com-

\* Read at a meeting of the Medical Society, County of Kings, October 18, 1904.

missure, where the majority of these fissures are seen. On the other hand, a good many have their starting point directly in the posterior median line where no valve exists. This can be best explained by the fact that this is the most fixed point of the anal outlet, being directly attached to the coccyx, and, therefore, offering more resistance to the hard fecal masses as they make their exit from the rectum.

The symptoms are pain, spasm of the sphincter, constipation, slight hemorrhage occasionally, and some discharge of pus, though this, as a rule, is insignificant. Of all these the pain is the pathognomonic indication of this affection, and is out of all proportion to the extent of the lesion. As a rule it is dull and gnawing or a burning, distressing sensation with bearing down feelings, and is accompanied by spasmodic contractions of the external sphincter. This entirely unfits the sufferer for work of any kind.

The reflex symptoms associated with this disease are often pronounced and affect principally the organs of reproduction and the urinary tract. Whenever persistent symptoms are referred to these organs, with no apparently sufficient cause for their existence, one should not fail to examine the anal outlet for a fissure of this variety.

The diagnosis of this affection is not difficult if the symptoms are kept in mind and a careful, local examination made. This is best done with the patient in the Sims' position. The buttocks should be well separated and the anus carefully inspected. Then with the fingers the lower portion of the anal canal should be exposed, the patient being asked to strain down at the same time. This procedure will usually bring into view any fissure that may be present. In many cases of long standing the presence of a so-called "sentinal pile" (which is really a hypertrophied skin-tag), will serve as a guide to the location of the fissure. Where it cannot be seen, exploration by the trained index finger can readily make it out; or a fenestrated speculum may be used to expose it to view.

In some cases the pain and spasm are so severe that neither the finger nor speculum can be used; in such, cocaine or eucaine in 2 per cent. solution may be injected into the sphincter muscle at the suspected location. The examination may then be completed.

The treatment for fissure may be either operative or non-operative, the latter by means either of drugs or electricity. In every case there should be certain general treatment for the upbuilding

of the patient—proper and nutritious food, fresh air and sunshine, and such general remedies as the individual case may require; an important feature being the bringing about of a regular, daily, soft evacuation of the bowels at a time when the patient can rest in the recumbent position afterward. The rest after stool adds greatly to the patient's comfort and saves the nervous system much depressing irritation.

Of the remedies for local use there are many. I shall only refer to two, ichthyol and nitrate of silver. About six years ago my attention was directed to the former by Dr. Tuttle of New York, since which time I have used it with most satisfactory results in many cases. Its application in full strength is frequently quite painful, especially in the beginning of the treatment, and it is advisable to precede its use by the application, for a few minutes, of a 10 per cent. solution of cocaine on a pledget of cotton, or better still, orthoform insufflated over the surface of the ulcer, which will, in a majority of cases, prevent the pain.

In uncomplicated cases, especially if recent, this drug is very effective, and will bring about a cure in from one to four weeks, if applied two or three times a week.

Nitrate of silver in varying strengths, especially in those old cases where the edges are undetermined and the surface sluggish, is of great value. The pain following its application is not so easily controlled as that following the use of ichthyol.

It is to the use of *electricity*, in the form of high frequency currents that I wish to especially invite your attention for the treatment of this painful affection.

In 1897, Doumer, of Lille, France, first used this method for the treatment of fissure in ano.

An army officer who had undergone two operations by forcible dilatation at the hands of a very competent army surgeon, and had not been benefited, presented himself to Dr. Doumer and begged to be treated by electricity. High frequency currents were used, and after the first application, of about five minutes, great relief was obtained. From that time on, there was marked diminution of the pain and sphincteric spasm, so that the constipation, which had been very pronounced, was greatly benefited. In fact, all the symptoms of the disease were so ameliorated that nearly one month elapsed before he came for the second application which completed the cure.

The results in this case were so encouraging



that eight other cases of well-defined, painful fissure, whose diagnosis had been confirmed by other competent observers, were subjected to this treatment during the following ten months, all of which were permanently cured. These cases were reported in the *Annals D'Electrobiologie*, March, 1898.

Since this report, the treatment of this painful disease by high frequency currents has gained considerable recognition by the profession in France, and cases have been reported by Drs. Delhern, Zimmern, Bloch, Balaan, Joulia and Laqueriere.

In June of this year, while in France, I learned from Dr. Doumer that since his first report he had used this method in many cases, and that he considered it the treatment of choice and far superior to any other method.

These currents may be obtained from either a static machine or a coil, by the aid of a proper apparatus.

The method of applying them is by vacuum electrodes directly to the lesion when possible. In those cases where the pain and spasm are so great that the electrode cannot be introduced through the irritable sphincter it may be applied directly against the anal outlet, and usually after one or two minutes may be passed through the sphincters without difficulty.

The electrodes used by the French surgeons are composed of glass, copper, silver, nickel and aluminum; those used in this country are usually of glass. For the treatment of fissure their diameter should vary from five to twelve millimeters. They are attached to an insulated, universal handle of hard rubber. It is best to use as large a size as possible so that the folds of the mucous membrane of the anal canal may be smoothed out and the currents thus brought into direct contact with the diseased area.

There are occasional patients who do not readily tolerate this form of electricity. In such, the copper electrodes will be likely to overcome the difficulty.

As in the treatment by drugs, the results are more rapid when the case is recent. In these, a cure is often secured after two or three applications.

On the other hand, the older the case the greater the number of treatments required.

It has been found, however, that rarely more than eight applications are necessary to effect a cure in even the most stubborn cases.

Dr. Doumer, in his first cases, observed that where other morbid conditions of the anal canal

co-existed with the fissure, these, too, gradually subsided as the fissure improved. This has been corroborated by all the other observers who have reported cases. This fact is especially important as cases with such complications have heretofore been considered to belong to the class amenable only to surgical treatment.

Just how these currents act we do not know. Certain it is that the electric intervention seems to produce progressive improvement of all the essential symptoms which constitute the morbid entity known as painful fissure. Probably they act especially as a sedative in overcoming the spasm and so producing sufficient rest of the sphincter for repair and cicatrization to take place. Undoubtedly, too, the nutrition of the tissues is improved, for we know that in the great variety of skin affections which yield to these currents the effect on the local nutrition seems to play a very important part in the cure.

A sufficient number of cases treated by this method has not been reported to determine an exact method to pursue. The reaction to this therapeutic measure varies with each individual case, as it does to drugs or surgical treatment.

A safe procedure is to make the applications of from four to ten minutes' duration and at intervals of two to seven days.

The only sensation that the patients experience during the application is one of heat, and this, together with the amount of reaction produced by previous applications should, I think, be an index to both the length of treatments and the intervals between them.

Up to the present time I have six cases in which a perfect cure has been obtained and several others under treatment in which a cure seems certain.

No harmful results have been reported from this treatment, and it would seem that it has already attained a legitimate place in our armamentarium.

Of surgical methods for the treatment of fissure three are recognized—dilatation, incision and excision.

Forcible dilatation is the most popular. Many failures are seen after its use. Where this method is practised, in order to insure success it is necessary to remove any polypus, internal hemorrhoids, overlapping edges, "sentinel pile," or any morbid growth which may interfere with the healing of the fissure. Where the fissure is located in the posterior median line, dilatation will probably fail, as the fibres of the external sphincter join at this point and run back to the tip of

the coccyx, and this procedure only separates them without producing paralysis.

Where this form of fissure exists it is not a proper case for dilatation but will yield to incision.

It was first thought that incision through the base of the fissure was sufficient to effect a cure, but in the kind of fissure just described it is no more successful than forcible dilatation, as it fails for the same reason to produce rest of the sphincter muscle.

It is necessary in such cases to make an incision on each side of the median line partially through and at right angles to the fibres of the external sphincter.

Where the fissure is located at other points except the anterior or posterior median line, the incision may be made directly through the base of the ulcer. It should begin well above the lesion and extend well below it into healthy skin, and should be about  $\frac{1}{4}$  inch deeper than the base of the ulcer.

The practice of many surgeons is to divide all the fibres of the external sphincter, but this seems unnecessary.

The great advantage of the method by incision is that it may be done under local anesthesia. In this method, as in dilatation, other morbid growths which interfere with the healing of the wound should be removed if complete success is to be obtained.

Excision consists in dissecting out the entire fissure and uniting the edges of the wound by sutures. Only a small number of cases are suitable for this method. Where it can be done and primary union obtained, it is the ideal operation.

None of these operations are without danger. The first is frequently followed by incontinence, partial incontinence, or loss of the rectal sense; the second may likewise be followed by a similar condition though there is less danger, and the third may be followed by infection with its various consequences.

#### ACUTE CATARRHAL OTITIS MEDIA.\*

BY LEFFERTS A. MC CLELLAND, M.D.

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"What shall I do for my baby's earache, doctor?" is a question likely to come to any of us

at odd times. This brings me, as the essayist, to a review of the fundamental elements of otology, for without a proper conception of these there can be no rational understanding of the plans requisite in handling the individual case before us for treatment. I have selected this commonplace topic for your consideration simply to review with you one of the most interesting phases of disease which you as general practitioners are called upon to treat. While it is true that this affection is a common one, yet with all deference to the attentions of other practitioners in the management of these very painful and harmful troubles, I feel sure that too many of the suffering patients receive neither the consideration nor skill which is essential if the duty of the attendant is adequately exercised. For, bear in mind, gentlemen, there are very few signs or symptoms present save the heartrending cries which are distracting to the tender sympathies of the loving mother and only too plainly show the torture of the helpless infant as it writhes in such agony as few children without earache are called on to suffer.

The stoical doctor may find himself at times moved to pity for the sufferer and yet fail to accomplish such relief as the child should have, simply because he has underestimated the accounts of acute catarrhal otitis media of which he has read and has therefore lost sight of the importance of first principles in the treatment of the case. These are the cases which the general practitioner is first called upon to see and upon the issue of which so much of the child's future healthfulness, happiness and usefulness may depend. I feel it the bounden duty of all whose work brings them in contact with the dire results of neglected early cases of ear disease to offer their unqualified disapproval of the too common practice of assuming that the child is only suffering from an ordinary, simple and to be expected affection of the ear which many of us have had. That it will be well in a short while if a few drops of warm sweet oil and laudanum are distilled into the affected ear may be doubted. The heterogeneous combinations of oils, greases, melted wax, decayed animal products, harlem oil, camphorated oil, turpentine, etc., simply indicate some forms of treatment used by the laity. I have often wondered why a veritable solution of fly blister had been slighted, for, in fact, chloroform, ether, and other hordes of irritating, nasty, useless nostrums have been utilized to hide the membrana tympani and obliterate the external auditory canal even though the earache still continued. By having

\* Paper read before the Long Island Medical Society, April 5, 1904.



buried the ear (like the frightened ostrich in the desert which plunges its head into the sand), the attendant often will not see and the little patient whose sufferings have kept all residents in the adjoining flats awake at last finds some relief either from the warm split potato, or hot onion, which has been packed into and around the ear, or because, from sheer exhaustion, the child can no longer cry. But, what's the difference, the child's better! True, the pain has been relieved, but what about the consequences to the child? Well, that depends on several factors, to which I will simply allude, as these suggestions for thought along the lines of acute catarrhal otitis media debar me from considering the consequences of acute suppurative otitis media. The objects of this paper have been to call attention to the importance of symptoms referable to diseases of the ear in childhood and especially that most common affection, earache, for it is a notorious fact that this very troublesome affection receives scant attention even from men in our profession who honor themselves with the opinion of duty well done. Now, as I have already intimated, this communication is not intended to be a commentary on the minutiae of acute catarrhal otitis media, but simply as a means of bringing anew to your attention some of the salient points easily observable by all, if we are qualified in any degree to assume even temporary charge of such a case. Under ætiology, it may be stated as a general principle that any disparity from the equal aerial pressure within and without the tympanum tends toward this affection. Therefore, what can be more noteworthy than that the common coryza, so difficult of treatment in children, is a contributory cause. Frequently the nose and post nasal space is filled with a yeast-like supply of gurgling mucus, which is being churned backward and forward during respiration. This is often aspirated into the eustachian tube and tympanum. Then, again, we must not forget the impinging of adenoid tissue and other enlargements about Rosenmüller's fossa which gradually choke off the sufficiency of air entrance into the tube of the ear. The pump-like action of an enlarged faucial tonsil will suck out, or aspirate, air at each piston-like motion during deglutition. Consequently the muscular structures concerned in the usual control of the air supply of the tympanum will lose tonicity. Again, at times the pharyngeal vault is filled with cob-web like adhesions which often involve the openings of the eustachian tubes. These hinder the action of the salpingopharyngeus muscle when, as they often

are, found binding down the lips of the tube in all directions like little strands of dried catgut. Between the meshes made by such is ever present a catarrhal exudate viscid and persistent. Inspiration of water into the tubes during bathing is another cause common in the summer time. Nasal douches and the forcible sniffing of water into the nose are likewise fraught with similar danger. A violent blowing of the nose may be a factor. I believe that the inspiration of noxious stomachic and intestinal gases may also tend to produce this trouble.

Under pathology, let me be cursory, for here we have just that which would occur to an inflamed mucus membrane anywhere plus the results of emptying an aerated cavity of its air which occurs by deflation and absorption. We have a retraction of the membrane, due to its lack of aerial support. Soon it becomes congested. The mucous membrane swells and becomes oedematous and flabby, so that the walls of the affected area may become agglutinated. Then the transudation of serum follows. In acute catarrh of the middle ear the mucous membrane is alone involved, so that the fluid which accumulates is usually in the form of sero-mucus. I have not limited my observations too exclusively to the tympanum, for while the analogous, though not identical, affection which is known as catarrhal aural salpingitis might be considered distinctly, we will consider the combined affections which for our practical purposes are so closely correlated that their origin and tendencies are similar; for it is too common a fact that we may have an involvement from the orifice of the Eustachian tube all through the tube to its terminus and involving the tympanum too. The accumulation of fluid within the tympanum may be such as to distend the membrane so that its removal is urgently called for, if indeed the overdistention has not already been sufficient to produce a rupture of the drumhead.

In children, the temperature usually is  $102^{\circ}$  or  $103^{\circ}$  and may run much higher. It may be ushered in by chills, vomiting or convulsions. Pain is excruciating and apt to be constant until the pressure is relieved. The piercing cries of the child with earache are to me peculiarly trying. Usually the infant places his hand to the affected ear. The membrane is diffusely hyperæmic and later may be seen to bulge so that the drumhead is forced low in the external auditory canal. After discharge takes place the canal is rapidly filled with a sero-mucus discharge which can be seen to pulsate in rhythm with the arteries

of the tympanum. The flow is often so great that the canal refills rapidly after cleansing. In adults, the pain is severe, but apparently less than in childhood. Prior to the exaggerated symptoms there is a feeling of stuffiness in the ears, muffled voice sounds, snapping and bubbling sounds due to air entering the fluid, pain, deafness, sometimes giddiness from labyrinthine pressure, mental hebetude is often marked prior to the distention.

Physical examination further shows besides the congestion, at the early stage, retraction of the membrana tympani, absence or displacement of the pearl or light spot, undue prominence of the hammer while later may be seen the fluid line and bulging of the tympanum.

Prognosis is usually good under appropriate treatment. This depends, however, largely on the character of the invasion, whether streptococcic, staphylococcic or pneumococcic.

Under treatment in the early stage there are two immediate considerations, viz., relieve the pain and abort further involvement. This may frequently be accomplished by thorough cleansing of the nose and post nasal space, preferably with cotton on probe, then the application of 1-10000 adrenal chloride solution on cotton when the cleanliness and patency of the nasopharyngeal entrance will enhance the chance of re-establishing the intra-tubal and tympanic pressure by nature, or by the aid of Politzer bag. At times, when the membrane is retracted greatly, the Siegle's otoscope will withdraw the membrane's excessive impingement upon the ossicles and thus tend to replace the normal position. Liberal flushings of the canal with water of 110° to 120° delivered in a constant stream from the ordinary fountain syringe, using the smallest tip, which should be placed on the floor of the canal, but not pushed into it, will prove of much service in relieving the prevailing condition in mild cases. I believe that this simple procedure is not practiced at sufficiently regular and short intervals by many, who fail of the object in consequence. Half hourly intervals between the two quart irrigations is often indicated. Leeches to the tragus will often dissipate the agony of a suffering child so promptly that sleep will follow forthwith. A dressing to the ear may be found most comfortable and my preference is a large wad of warmed absorbent cotton packed loosely about it. A hot foot bath and a cathartic are often beneficial. Occasionally a hypodermic of morphia may be necessary.

Failing to abort the affection, sterilize the canal, and incise the membrana tympani while the

patient is under the influence of either nitrous oxide gas, ether, chloroform or a local anæsthetic, e.g.  $\frac{R}{x}$  Alcohol, carbolic acid and cocaine (saturated solution), equal parts.

After operating, irrigate the canal with sterile warm saline solution or Thiersch's solution.

The common practice of insufflating boric acid into the canal may be fraught with danger owing to its tendency to cake and occlude the canal, thus interfering with drainage. Protect the tympanum from further infection by carefully dressing the canal with sterile gauze or cotton, being diligent in its frequent removal. Cleanse and redress very often, always remembering to dry the canal after irrigation. Follow up with inflation if this is indicated.

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#### ACUTE INTESTINAL OBSTRUCTION.\*

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BY WARREN S. SIMMONS, JR., M.D.

In speaking of the subject of intestinal obstruction, my desire is to bring before the Society for discussion that disastrous condition in which the patient is so suddenly stricken and quickly realizes his end unless prompt aid is given to him. I say prompt aid, I think advisedly, for all know too well the awful picture of acute suffering, distended abdomen and anxious countenance that, at times, we are compelled to witness, and realize that the victim of the accident has delayed too long before appealing to the surgeon for relief.

The important classifications of intestinal obstruction are two in number: namely, the acute and chronic; and the importance of separating the two varieties cannot be too strongly urged, as it is upon this that the only rational treatment exists, the chronic forms permitting us to employ the element of time in our diagnosis and remedial agencies, and also causing the recognition of the fact that there is some other condition to be considered besides the obstruction; while in the acute variety instant and immediate mechanical procedures must be undertaken to save the patient's life.

The causes of intestinal obstruction are well known to you all, but of the acute forms there are only two conditions that are recognized with any degree of rapidity and certainty, the strangulation of the intestine through a hernial orifice and that train of symptoms of vomiting, tenesmus, bloody and mucous stools and suddenly

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\*Read before the Brooklyn Surgical Society, Oct. 6, 1904.



formed abdominal tumor that denote intussusception. The conditions of volvulus strangulation by bands, recent adhesion causing kinking and the slipping of intestinal coils through normal and abnormal intra-abdominal openings, can only be determined by sight after the abdomen has been explored.

The following cases will be, I think, of interest to all:

W. F., boy, age 2: Mother first noticed diarrhea, as she expressed it, about noon. Stools became very frequent and small with much tenesmus and blood, and child commenced to vomit. I saw this boy about two and a half hours after it was taken ill and found the following conditions:

Evidences of abdominal pain in the drawing up of the legs and crying. Movements examined and consisted of fluid blood and mucus. Temperature normal, pulse 120. Abdomen contained a tumor about two inches long, situated in left iliac and umbilical regions. This child was treated by using about a quart of warmed olive oil, introducing it into the rectum through a large soft rubber catheter attached to a fountain syringe held three or four feet above the bed, and also by massaging the tumor externally. In an hour's time the tumor disappeared. The child's hips were then lowered and the oil allowed to escape. The after treatment consisted in attempts to limit peristalsis by the use of opium and a carefully restricted diet. The recovery was uneventful, and there has been no return of the trouble in the last four years.

Case 2. Boy, age 8. Has had no normal bowel movements for three days. Passages from rectum infrequent, consisting of blood and mucus. Pain in abdomen that came on soon after slipping on the stairs three days ago. Abdomen slightly distended, not tender except over a tumor about two and a half inches long, situated in umbilical regions. This child was seen by Dr. Kiune about four hours previously, who, after unsuccessful attempts at reduction by rectal injections, kindly referred the case to me at St. Johns. The pulse was 146 and weak, temperature 99. A medium incision revealed an invagination of about ten inches of the ileum, in a gangrenous condition. The gut was excised; end to end anastomosis performed. This boy seemed to stand the operation fairly well, recovered consciousness, but died about six hours later.

Case 3. Male, age 28. History of reducible inguinal hernia for several years. While at work hernia suddenly descended and became painful,

accompanied by vomiting. Returned home and the rupture was voluntarily reduced by the reclining posture. Pain and vomiting still kept up and abdomen commenced to swell. Small tumor was present in right inguinal and extending into the hypogastric region. This was the history when seen by me fifteen hours after the accident. Patient was removed to hospital, abdomen opened, bowel found to be constricted by a band completely occluding the ileum. End to end anastomosis with Murphy button after excision of nearly three feet of gangrenous intestine, and abdomen closed without damage. Patient made an uneventful recovery.

Case 4. Female, 38. Widow. Pain and tenderness in abdomen, with marked distention. No bowel movement for six days, vomiting dark fluid material with fecal odor. Urination ceased two days ago and catheter revealed only a few ounces in bladder. Abdomen opened and cause of obstruction found to be bands originating from inflammatory area around old pus tube. Nearly the whole of the small intestine was distended and its coats much thickened. Closure of abdomen with drainage. Death in about thirty hours.

Case 5. Female, 7 months. Entered St. John's Hospital November 20, 1900. Service of Dr. Hopkins. Patient has had no normal bowel movement for three days. Vomiting. Frequent discharge of mucus and blood from rectum. Tumor about size of hen's egg in lower central portion of abdomen. Abdomen not distended. Temperature 105, pulse 172, respiration 30. Medium laparotomy revealed an intussusception in gangrenous condition, occupying ileum and cæcum. End to end anastomosis with Murphy button after excision of gangrenous bowel. Patient died five hours later.

Case 6. Male, age 50 years. No history obtainable. Vomiting of fecal matter. Marked abdominal distention, temperature subnormal, pulse 160. Laparotomy by medium incision showed distended, thickened bowel above a constriction formed by a band in left inguinal region. Band was severed between ligatures and abdomen closed by through and through sutures of silk worm gut. Patient left the table in a condition of marked shock and died three hours later.

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Studying these few cases whose history so closely resembles others of like character, surely reveals the desperate condition into which the patient rapidly falls, and what to do for him is the first question that arises.

If seen very early in the attack, the cases of intussusception can at times be relieved by the distention of the large bowel as in Case 1. Whether this shall be done by fluid or gas depends much on the surroundings present. Fluid is obtainable almost anywhere; gas is not always within reach. Invaginations in the large bowel and at the ileo cæcal valve may be reduced by distention of the colon with fluids; but some experiments by Senn on animals proved that attempts to force water beyond the valve resulted in rupture of the peritoneal coat of the colon. Gas, however, could be carried by the valve, and the small intestines distended without causing the same peritoneal injuries.

If no suitable apparatus is present, a bicycle pump, bellows or inverted charged syphons of carbonated water may be used for this purpose, the gas being introduced through a long rubber tube passed up as far as possible, care being taken to compress the anus around the tube to prevent the gas escaping externally.

A combination of distention and massage has relieved some cases, but should not be employed for too long a time.

Before an operation is undertaken on cases of intestinal obstruction, much can be accomplished by the employment of rectal and gastric lavage. This procedure contributes, in a large percentage of patients, to their comfort, both by preventing absorption of the intestinal contents and also by relieving the vomiting that is so great a strain in their weakened condition. Before an anesthetic is administered, the stomach must be emptied by the tube, as there are numerous cases reported of death on the table from drowning, when after the abdominal tension has been relieved, the stomach contents are suddenly expelled in enormous quantities and in spite of the greatest care, on the part of the anesthetist, much of the material finds its way into the trachea.

The methods of operating in this disease will vary according to the choice and technic of various surgeons; but three things must be done. The lumen of the bowel must be made patent either by relieving the constriction or the establishment of an artificial anus. Gangrenous gut is to be removed from the abdominal cavity and over distended intestinal coils; emptied, and lastly the time in which any operation is done must be short; too much delay and intestinal manipulation often meaning the death of the patient.

Whether to employ local or general anesthesia

will depend on the patient's general condition, and must be decided upon the merits of each individual case.

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We cannot urge too strongly the absolute necessity of early operation. Two of these reported were seen, one from three to four hours and the other about fifteen hours after the attack commenced, and both recovered. The others having delayed too long before seeking surgical relief, met their death.

There has purposely been omitted from this list of cases those of strangulated hernia. The brilliant results of surgery in this condition depends, I am convinced, upon the early recognition of the trouble and the prompt action of the surgeon.

One other case that came to my notice was through the courtesy of Dr. Rankin. A patient left in his charge by Dr. Brinsmade was convalescent from an attack of acute suppurative appendicitis. She was out of bed and walking about the hospital. One morning, feeling somewhat nauseated, she remained in bed, and when the doctor asked her condition she replied by vomiting some fluid material with a strong fecal odor. I doubt if an hour intervened between the time she first vomited and that in which her abdomen was opened, and the intestine that was constricted by bands and kinks straightened out. Her recovery was uneventful.

This case, and there are many like it, taught a good lesson, namely, that in acute intestinal obstruction, make an early diagnosis and immediately employ surgery for its relief.

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#### CYSTIC GOITRE OF RIGHT LOBE IN A WOMAN TWENTY-FOUR YEARS OF AGE.

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BY WILLIAM AUSTIN TOMES, M.D.

The disease began eight years ago. The patient had been treated with external applications and internal remedies. Had palpitation on going upstairs; slight bulging of eye balls; pulse rate running to 120. She was exceedingly nervous; had trembling of hands and dyspnoea and a choking sensation from the pressure on the trachea. All symptoms were worse at night. Operation, under chloroform and ether, occupied about an hour. Whole right lobe was removed. A collar incision was made over tumor, cutting down to



muscles; then pushing these aside, the tumor presented; it was dissected out, isthmus was separated from trachea, the former crushed and tied off with strong ligatures. The tumor was dissected from within outward, tied off *en masse* and subsequently removed. It was about the size of a large orange. The center was cystic and filled with a grumous fluid, the walls resembling a hen's gizzard. The wound was closed without drainage in the absence of oozing and healing was by primary union, in seven days.

Two months have elapsed; the eyes appear normal; pulse rate 78; dyspnoea has disappeared and the patient is entirely well.

## TRANSACTIONS OF SOCIETIES.

### THE MEDICAL SOCIETY OF THE COUNTY OF KINGS.

STATED MEETING, NOVEMBER 15, 1904.

The President, J. E. SHEPPARD, M.D., in the Chair.

The meeting was called to order and the minutes of the previous meeting read and approved.

There were about 550 members present.

#### REPORT OF COUNCIL.

The Council reported favorably upon the following applications for membership:

Edward R. Hildreth, Cornell, 1902.

F. H. Wilson, P. & S., 1904.

H. F. McChesney, P. & S., 1902.

D. Sherman, L. I. C. H., 1896.

N. McS. Whittaker, P. & S., 1903.

C. F. Bolduan, P. & S., 1901.

H. J. Wood, Albany, 1885.

Kurt, Elsner, Univ. Munich, 1887.

#### ELECTION OF MEMBERS.

The following having been duly proposed and accepted by the Council were declared, by the President, elected to active membership:

John A. Longmore, 26 Schermerhorn Street.

E. S. Morton, 194 Keap Street.

#### PROPOSITIONS FOR MEMBERSHIP.

Proposed by Membership Committee:

F. Tilney, 205 Washington Avenue, L. I. C. H., 1902.

M. M. Apfel, 331 S. 5th Street, N. Y. Univ., 1892.

W. J. Campbell, 384 Union Street, L. I. C. H., 1899.

W. E. McCollom, St. John's Hospital, P. & S., 1903.

C. G. Koehler, 313 S. 5th Street, P. & S., 1882. (Former Member.)

C. W. Brunner, 103 Wilson Street, L. I. C. H., 1891.

W. K. Jacobs, 309 15th Street, P. & S., N. Y., 1899.

Jerome Walker, 492 3d Street, P. & S., 1868.

S. F. Anderson, 718 Union Street, L. I. C. H., 1890.

R. A. Black, 111 6th Avenue, P. & S., 1883.

Proposed by A. M. Judd.

Seconded by Membership Committee.

#### SCIENTIFIC PROGRAM.

1. Paper: Transillumination of the Stomach. By Dr. Henry W. Lincoln.

2. Address: The Acute Tuberculous Pneumonia. By Dr. William Osler, Johns Hopkins University, Baltimore, Md.

#### EXECUTIVE SESSION.

The following resolution was presented and read, and, on motion, duly carried and adopted:

*Whereas:* The Japanese have reduced sickness in their armies to an unprecedented minimum.

*Resolved:* That the Medical Society of the County of Kings, New York, respectfully urges the President of the United States to send without further delay as many medical and military attachés as practicable to study the medical, commissariat and transport administrations of the Japanese armies; and

*Resolved:* That, in the opinion of this Society, hygiene and sanitation should be taught at West Point, Annapolis and in the War College; furthermore

*Resolved:* That the President is requested to initiate measures to the end that the medical department and sanitation be adequately represented on the General Staff.

There being no further business before the meeting, it was, on motion, duly carried, adjourned.

W. S. HUBBARD,  
Secretary.

# MEDICAL SOCIETY OF THE COUNTY OF KINGS.

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OCTOBER, 1904.

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The President, JOHN E. SHEPPARD, M.D., in the Chair.

WILLIAM S. HUBBARD, M.D., Secretary.

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PAPER: A NEW FORM OF HYDO-DYNAMIC BAG FOR DILATATION OF THE CERVIX UTERI.

(Will appear in next issue of this JOURNAL.)

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BY DR. RALPH H. POMEROY.

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## *Discussion.*

Dr. F. H. STUART: I have profited very much by the paper. The device seems to me to be a very excellent one, and to me a crying need. I have had the experience referred to by the writer with the Barnes' bags, and long ago gave them up.

I have been in the habit of using manual dilatation, but as the opening remarks in the paper indicated, there is a demand for some such device as this to shorten the first stage of labor. I think that if this bag accomplishes what the Doctor intended it shall, it ought to get into very general use and become a part of the ordinary obstetrician's outfit. I should certainly feel that I should want to add it to mine.

Dr. C. JEWETT: Tardy dilatation of the cervix is a frequent and sometimes a very troublesome complication of labor.

It will be remembered that, in the natural method, dilatation of the cervix is effected largely by the pull of the longitudinal fibers of the upper uterine segment. There is, too, doubtless, some physiological relaxation analogous to that of the sphincters. When the cervix fails to dilate, the trouble most frequently is that the action of the upper uterine segment is inefficient, i. e., the uterine contractions are not good.

The various artificial methods of dilatation, whether with instruments or with the hand, de-

pend largely on mechanical force. All act in some measure, too, through stimulation of uterine contractions. The water bag most nearly imitates Nature. It applies the force more equably than does the Bossi instrument or other steel dilators, or even the hand; it does less injury to the cervical tissues, and, probably, it better stimulates the contractile portion of the uterus.

Dr. Pomeroy's bag is a distinct advance over the Voorhees bag, of which it is a modification. In using the Voorhees bag, the bag is placed in the cervix and is driven down by the head as the pains come on. In the absence of good pains we are compelled to use traction. We may pull intermittently upon the tube attached to the bag so as to draw it through the cervix for the purpose of dilatation and of stimulation of the pains, or we may put a weight upon it. This I have found is sometimes quite uncomfortable to a nervous and sensitive patient.

The apparatus of Dr. Pomeroy obviates this disadvantage. The conical bag is placed in the cervix and is distended with salt solution. By dilating the second bag the first is gradually drawn down through the cervix without downward traction upon the uterus, a distinct gain over the Voorhees bag, which was the best in use for its purpose before Dr. Pomeroy gave us the present one.

A few months ago I had a rubber bag made, a sample of which I have here. It is after the Voorhees pattern, but larger, being intended to replace the more perishable Champetier-de-Ribes bag, especially in certain cases of placenta prævia.

Dr. J. O. POLAK: Dr. Jewett has described the physiological dilatation, but both Dr. Pomeroy and Dr. Jewett have omitted to mention one of the difficulties that I have met in using the Voorhees bag, which with this bag, I judge, will be obviated, i. e., while the Voorhees bag succeeds in dilating the cervix, we have a considerable elongation and thinning out of the lower uterine segment, which act as an obstacle in the subsequent delivery of the child. With the Doctor's bag we have effacement of the portio vaginalis, which is permanent, an advantage that we can not get with the Voorhees bag. While we may efface the internal os by traction on the distended balloon, or by the intermittent distention of the bag, yet the lower segment, and particularly the cervical portion of the uterus thins out and is a considerable embarrassment sometimes in the delivery.

There is no question as to the superiority of this bag, should subsequent demonstrations carry



out the success the Doctor has had in the few cases he has used it, over the operation with the Bossi dilator, which in the hands of the ordinary man is an extremely dangerous instrument, and even in the hands of the expert it has given barbarous results. For it is extremely difficult to control the pressure exerted to secure the necessary amount of dilatation.

Manual dilatation again has the disadvantage that it is against the physiology of dilatation of the cervix, and while we can get a dilatation, we do not get effacement of the internal os or the portio vaginalis. If I understand the mechanism of Dr. Pomeroy's bag, we not only get effacement of the internal os, but by the inflation of the lower bag we do have effacement of the portio vaginalis, so that we obtain a dilatation as truly physiological as we would have had the bag of waters protruded and the longitudinal fibres shortened up the cervix. These I think are very great advantages.

The only criticism that we could offer is the necessity of preliminary dilatation, and the Doctor has forestalled this by suggesting that the cervix be prepared by introducing a smaller sized bag. At present, the introduction of the bag has to be preceded by manual or instrumental dilatation until we can get one or two fingers into the cervix. This would be an objection as in my opinion. We can not dilate instrumentally, neither can we dilate manually, without doing a certain amount of traumatism to the cervix.

Dr. R. H. POMEROY: The physiological dilatation of the cervix has been very much complimented by Dr. Polak, as executed by the present bag. I doubt whether it is intended or expected to accomplish a physiological dilatation of the cervix. The most I hope for it is, that it will take the place of the Bossi dilator and of manual dilatation as now used.

It would be a very extraordinary possibility indeed if such an apparatus as this could safely be used to shorten the first stage of ordinary labor.

PAPER: FISSURE IN ANO.

BY DR. EARLE H. MAYNE.

### *Discussion.*

Dr. J. B. BOGART: Every doctor sees these fissures and a good many doctors have them. It was not until I became a sufferer myself that I learned patients afterward. I remember the pain got so to treat this injury. I learned so much from my own case that I made my treatment that of my

bad on one or two occasions that, when called to the hospital to operate, my nerve left me and I had to go home and lie down. After suffering for two or three weeks I had about made up my mind to submit to an operation for relief, but having a great deal of diffidence about that, I concluded that if I could prevent the dilatation of the fissure, it would probably heal up spontaneously, and I began experimenting with various laxatives to see which would enable me to have a passage from the bowels that would produce the least dilatation, and I finally settled upon the well known Spanish Rubinat water. I found if I took a sufficient dose on retiring at night the bowels moved freely in the morning—watery passages—and by not dilating the sphincter there was no pain and no bleeding. I supplemented the treatment by the use of some hamamellis suppositories made by Boericke & Tafel. I found by introducing these suppositories into the rectum after evacuating the bowels that they gave relief from the pain and I was fairly comfortable. In a short time—a week—my fissure was cured.

Since that time it has been my custom, when a patient presents himself with a fissure, to try the remedy which cured me, and I have seldom had to resort to any other treatment.

So far as electric treatment is concerned, I have had no experience with it. It seems to be a new plan, but if cure results from such measures as I have suggested, we hardly need to fit ourselves with the necessary electrical apparatus. Such local applications as nitrate of silver may be used, or if that does not succeed, we may stretch the sphincter, incise the fissure and curette the ulcer. I think the disease, while painful, is not a difficult one to cure.

As for the danger of incontinence resulting from incision or dilatation of the sphincter, I think that has been over-estimated. Of course, if we make more than one incision through the sphincter, we may have incontinence afterward. I had one such result from a posterior deep incision involving the levator, for the removal of a dermoid fistula running up behind the rectum and requiring considerable dissection. When the wound healed there was left a rather bad condition of the rectum. That patient passed out of my hands and went away to another city. She submitted to operation by another surgeon. I saw her recently, and although reported to be cured, the condition still prevails.

I do not wish to throw any discredit on the electrical treatment, but if we take a little pains

we may cure many of these cases with less trouble and expense.

Dr. E. H. MAYNE: There is one thing that comes to my mind that I want to mention. Whenever general anesthesia is administered to a patient there is always a certain amount of risk, and if any measure can be adopted whereby general anesthesia can be avoided, I think that as surgeons and physicians we ought to use it.

About two years ago I listened to a lecture of a New York specialist on this disease, and he related an instance which made a very great impression upon me. He said that two days before he had been called in consultation by a physician to see a case, and when he got there the physician told him that the case was one of fissure, which was very painful, but which the patient could not bear to have treated locally, and the doctor proposed that they stretch the sphincter then and there. This specialist asked him if the urine had been examined, and the doctor in attendance assured him that it had. The patient was only 40 years of age, apparently in good health except for this local condition, which caused a great deal of pain. It was decided to give him an anesthetic and stretch the sphincter. Chloroform was administered, the operation done, and two days later the patient died. On inquiry it was found that the doctor who examined the urine had failed to make an urea examination. Within a short time after the anesthetic was given symptoms of uraemic poisoning supervened, which resulted in the death of this patient. These cases are coming up every once in a while, and they should lead us to examine the urine in every case for the total urea excreted before giving a general anesthetic.

In regard to incontinence following the operative measures, I am quite sure that more of these cases occur than are generally believed. It not infrequently happens that incontinence ensues after stretching of the sphincter. Four years ago a patient of mine was operated on in one of the hospitals for fissure and the operation resulted in absolute incontinence, and for the rest of his days he led a very miserable existence.

#### PAPER: DIAGNOSIS OF ECTOPIC GESTATION.

BY DR. ALBERT M. JUDD.

#### *Discussion.*

Dr. G. McNAUGHTON: This subject has been before the Society several times in the last few years either directly or referred to indirectly in discussion, and not too many times for the good

of the community, because this is a condition which is more common than is usually admitted.

I rather disagree with the reader of the paper that the diagnosis of this condition should remain for the specialist. It seems to me the general practitioner should be fully competent to recognize this condition in the vast majority of cases. The history in my experience is quite typical, and if a few points are remembered, the practitioner will be able to make the diagnosis. These points in the history are in accord with the physical condition.

I do not know how many cases of ectopic I have seen, but it is a large number—indeed, in one day I saw three cases with one practitioner in this city. The symptoms, as I stated, are in accord with the physical condition and are fairly typical. I believe that in a large majority (90%) of cases there will occur a primary rupture safely within three weeks after the missed menstruation, usually within a week and perhaps mainly within five days. If you have a patient who has supposed herself pregnant, giving the history of a supposed pregnancy, or a passed menstruation, and has experienced some inconvenience in the pelvis, perhaps before the expected menstrual period, then followed within five days to three weeks by a severe pain, sufficient to make it necessary to call a physician, you may suspect that she has an ectopic pregnancy. If, in addition, on physical examination, you can make out a fullness or a resistance in one or the other side of the uterus, you may have a very strong suspicion. If this is accompanied by symptoms of loss of blood, you do wrong if you do not recommend an operation.

A departure from the typical means increased difficulty in diagnosis always. This applies to all other conditions. I believe ectopic gestation is as easily diagnosed as other pelvic conditions.

I have seen a case in which the necessity of operation was determined by the presence of appendicitis. The diagnosis was of ectopic pregnancy, which was present; the diagnosis of appendicitis was incidental in the operation for the ectopic, but it was the suffering and pain of the appendicitis which determined the necessity of immediate operation.

We forget that sometimes pain may be found on the opposite side. It is not unusual to find a considerable amount of blood in the tube of the opposite side, and occasionally when rupture has occurred the offending mass disappears; yet on the opposite, or unaffected side, we find a mass caused by the retention of blood in the fallopian tube. I think this important to remember. On



one occasion I saw a tube distended with blood; there was no point of rupture; the doctor supposed a portion of the free blood had escaped from the pelvic end of the tube, while in fact the rupture was on the other side, and there was no necessity of removing the unruptured tube.

I would disagree with Dr. Judd in stating he would not make incision through the vagina for the relief of any of these cases. It seems to me some of them are best treated in this way, especially old sub-ligamentous hemorrhages.

Another point in diagnosis is as to the location of the blood. Whenever there is a distention of the broad ligament from any cause—a subligamentous cyst, an effusion of blood or a fibroid tumor beneath the broad ligament, the uterus itself is pushed up against the symphysis, the cervix may be found directly below it, and you can palpate the uterus above the symphysis. I think this is usually understood, but often forgotten. In that case we are safe in making an incision behind the uterus and saving the patient a more serious operation.

Dr. L. GRANT BALDWIN: In considering the diagnosis of ectopic pregnancy, the standpoints of the general practitioner and the specialists differ, and the subject should be so considered. In other words the diagnosis of immediate rupture is different from the diagnosis a week later when the specialist, as a rule, sees the patient; the symptoms in the first case being acute, and correspond to the symptoms of any intra-abdominal rupture and the diagnosis at that time, of the specific condition, I believe is extremely difficult, and in many cases impossible to make.

When the secondary symptoms have set in the conditions are entirely different. In the first place, in regard to the menstrual history, it seems to me that irregularity of menstruation is not as important as delayed or scanty menstruation. A menstruation two weeks after the regular period does not mean as much as a delayed menstruation of two weeks or one smaller in amount than usual. That I think is important.

The pain, in my experience, has been described by patients, when the question has been put to them, as the worst *pain* they ever had. I frequently ask them if it as bad as a labor pain; "why, yes," they will say, "it is the worst pain I ever had." The pain has usually been described as labor-like and not as a shooting pain, and particularly have they been of a bearing down character.

The immediate symptoms following rupture have been laid down in the books and by our

teachers as being very much more grave and severe than they actually exist. I believe, we do not often see the horrible picture presented to us in the books of the terrible collapse, the cold sweats and the complete disability that we were taught to look for, and that I believe accounts for many mistaken diagnoses.

In regard to the location of the rupture. Out of a great many cases I have never seen an intraligamentous rupture. In all cases I have operated on there has always been free blood in the peritoneal cavity, and the rupture has been found in the tube, or tubal abortion has occurred. I believe broad ligament ruptures must be very much less in proportion.

In diagnosis, I would agree with the writer of the paper most emphatically, that abortion is the most common condition, which is mistaken for ectopic pregnancy, and I believe that is explained by the previous remark, that the symptoms are not as severe as we have been taught to suppose that they are. Of course, a careful physical examination in most instances should clear up that matter, but it remains a fact, nevertheless, that many cases of ectopic gestation are curetted for an incomplete abortion.

One prominent symptom that should help is the character of the flow of blood, being bright red and clotted in abortion, whereas the blood of ectopic is of a thick, tarry character and scanty.

The writer touches upon the causes of ectopic pregnancy, and I would agree with him that sterility has little to do with it, having seen cases in which the first pregnancy was an ectopic with absolutely no history of any pelvic disease, and believe the occurrence is purely an accident in many, if not the majority of cases.

The symptoms of normal pregnancy are misleading, and seldom exist to a sufficient extent to warrant us in considering them, otherwise than the delayed or scanty menstruation. Patients occasionally say that they were pregnant, but it is generally because their menstruation was delayed.

In differentiating other intra-abdominal conditions, we must bear in mind that the symptoms are practically the same from the rupture of any abdominal viscus. A distended tube may rupture from a twist, and we may have a hæmatosalpinx not due to ectopic pregnancy, and the symptoms are the same. Pus tubes often give the same history. Delayed or skipped menstruation often occurs in suppurative diseases of the tubes, so that the difference between a nephroid pus tube and ruptured tubal pregnancy is oftentimes impossible

to diagnose, and, of course, is unimportant so far as treatment is concerned.

We should not fail to consider the matter of the gall bladder as being a possible complication; also the spleen. Within a few months I have seen a case of spontaneous rupture of the spleen that was diagnosed by me as ectopic pregnancy, the pain being referred entirely to the pelvis. Many cases that are allowed to remain not operated on are really tubal abortions, and are in a little different class from the actual rupture of the tube. A number of cases have come under my observation where the fruit sac has been expelled from the end of the tube and it (the tube) left uninjured; these are the cases that give fewer symptoms than the more severe cases where rupture occurs.

Dr. C. JEWETT: In the diagnosis of ectopic gestation it is important to make a distinction between cases before and after the interruption of the pregnancy. Before the interruption of the pregnancy there is little in the symptoms to distinguish it from a normal gestation, and opportunity is seldom offered for physical examination.

After the termination of the pregnancy by rupture of the tube the clinical picture is very characteristic. The most typical evidence of a ruptured ectopic pregnancy generally are a long period of sterility, which is frequently present, in most instances a skipped period, an abrupt attack of colicky pain, usually intense, often more or less collapse, and, as a rule, irregular genital bleeding. Here, as the French say, the diagnosis imposes itself.

It seems to be assumed in the discussion this evening that the common termination of tubal pregnancy is rupture of the tube. This termination, however, is comparatively infrequent. Reliable statistics show that the tube ruptures in only about 25% of cases or even less; at least 75% of cases end by tubal abortion. Martin goes so far as to say that the pregnant tube never ruptures except when the abdominal end is closed or perhaps a hernia of the mucosa exists. In the latter event the fruit sac may perforate the tube wall at the situation of the hernial protrusion.

Intraligamentous rupture of the tube is of very infrequent occurrence, as the author of the paper has said. It happens probably in little more than 1% of tubal pregnancies. Here, in recent ruptures, generally the diagnosis is not difficult. In addition to the characteristic history and present symptoms of ruptured ectopic pregnancy, we have a well marked tumor in the ligament.

I know of no means of distinguishing clinically between tubal rupture and tubal abortion. In the

latter termination probably the diagnosis of ectopic gestation may not so easily be made. In about 10% of tubal abortions, the ovum is promptly and completely expelled and the hemorrhage stops. One factor in the diagnosis is thus lacking. So long as the ovum retains in part its attachment to the tube wall the intraperitoneal bleeding continues, and the clinical phenomena differ little from those of rupture.

Several kinds of cases might be mentioned in which the real condition may be difficult of recognition. The internal hemorrhage may go on very slowly or be small in amount. Bleeding may be prevented through occlusion of the rent by protrusion of the ovum into it. When the abdominal end of the tube is closed the termination of the pregnancy may result in a hematosalpinx, or something like a fleshy mole, which is difficult of distinction from certain other tubal tumors. Ovarian hematoma or abscess may very closely counterfeit a tubal gestation. Moderate peritonitis with encysted blood or matting together of intestine, gives physical evidence of little more than a peritoneal infection which may have resulted from any one of several causes. In a recent discussion in this society rigidity of the abdominal muscles was mentioned as a sign of interrupted ectopic pregnancy. Rigidity of the abdominal muscles, I assume, belongs not to extra uterine pregnancy nor to its termination by rupture or otherwise but rather to the peritonitis that often follows.

Sterility has been mentioned by two of the speakers as a cause of ectopic gestation. It is not, I take it, a cause but rather a symptom of a state of things which makes pregnancy of any kind difficult, namely, disease or anomaly of the tubes.

Dr. W. B. CHASE: In a study of these cases a discrimination might be had perhaps regarding the characteristic pain which preceded the rupture. In many of these cases the classical symptoms are present, the skipped period or spotting of the linen occur, and the woman, on making some muscular effort, suffers a severe pain and shock. These cases are quite common, but I believe there is another class of cases which are less frequent, but the symptoms are equally manifest. That is the cases of true tubal pregnancy, in which, by a gradual growth of the foetus, the tube is slowly distended and is the causation of pain. In these cases the pain is present for several days before rupture takes place, on the side the pregnancy exists, and if, during that stage, careful bimanual palpation is made, we will be able to make a diagnosis of tubal pregnancy before rup-



ture has taken place. That is the ideal to which all aspire. True, this opportunity does not often present itself. I have under such conditions been able to diagnose with such a degree of certainty that an operation was warranted and the results of the section justified the procedure.

Dr. J. C. MACEVITT: In the discussion of the paper there has been no distinction made regarding the different lengths of time of the pregnancies. The gravity of any given case is therefore relative and the treatment susceptible to modification. In tubal abortions, as referred to by Dr. Jewett, which probably numerically outclass the others, the abortion takes place at an early period, and with that abortion as a rule we have but little hemorrhage and very few symptoms to indicate ectopic gestation either at the time or afterward, because the embryo, when thrown off at so early a period as the end of the third or fourth week, is absorbed within the peritoneal cavity; and hence the woman goes on, not knowing she was pregnant, or the physician recognizing the condition. But the experience of surgeons is that when a case demanded an operation the tube was found ruptured.

A remark by Dr. McNaughton struck me as of very great moment. When he said that in some cases one is justified in opening through the cul-de-sac, and that is the preferable method, I beg leave to differ with him; that is, where the cases are of an acute and grave character. If there is simply an extravasation of blood in the pelvis, due to the hemorrhage of a ruptured ectopic gestation of long standing, the old so-called pelvic hæmatocele, you are justified in opening into the cul-de-sac, but would Dr. McNaughton say it would be justifiable to open into the cul-de-sac where an ectopic had existed for three or four months with a well developed placenta attached to the pelvic and abdominal viscera? Would not the admission of air help to produce an infection? Would not the placenta and the blood remaining there form a pabulum for infection, and would not we get infection in such cases? Hence, I believe, where you have an ectopic rupture at almost any period except the very earliest, laparotomy is the proper and only procedure.

The difficulty of recognizing ectopic gestation is oftentimes very great. If we have all the classical symptoms it is easy, but it is rare to find the symptoms so beautifully described in the textbooks.

Within a very recent period, I had a case which shows the difficulty in diagnosis. A woman was brought to St. Mary's Hospital markedly septic

with the following history: She had had three instrumental labors at term. When, upon a bimanual examination I found on the left lower quadrant of the belly a large mass, slightly movable, fluctuation in the cul-de-sac, uterus somewhat enlarged, cervix hard, and the os closed. Now, in ectopic gestation, you find the cervix softened and the os patulous. Here no such conditions existed. The breasts were not enlarged, no areolar discoloration, no milk, no bluish congestion about the vagina; in fact, with the exception of the absence of her regular monthly flow on the 15th of April and but just a show on the two following expected appearances, she gave no history of pregnancy.

Three months after the supposed conception, while in the performance of her household duties, she experienced a sudden pain, not particularly severe in character but followed by a sense of weakness and nausea. She resumed her ordinary duties on the following day and continued doing so for the period of a month, when a slight flow appeared, accompanied by bearing down pain. A physician was sent for, who, after treating her for two weeks, sent her to the hospital. With the objective symptoms and by exclusion, I made a diagnosis of a ruptured tubal pregnancy and ordered the patient prepared for a laparotomy on the following morning. In the meantime word was sent to her husband of the proposed operation, when he called at the hospital and stated to the house-surgeon that the physician in attendance two weeks before had removed from the uterus a fleshy mass which he said was the result of a blighted conception. With this information I had grave doubts of the accuracy of my diagnosis. The symptoms then pointed strongly to septic infection. A dual conception was possible, or the material removed might have been the decidua membrane of the uterus which exists in these conditions. However, to clear up the diagnosis, I aspirated through the cul-de-sac and, withdrawing only blood, I at once opened the abdomen, found the cavity filled with clots and a foetus of about four months free, attached by its cord to the placenta, which was adherent to the broad ligament, uterus and intestines. The history of the case shows that at the third month there was a partial rupture of the tube, completed on the fourth.

For the guidance of the practitioner, there are three prominent symptoms which will seldom fail to assist in the diagnosis of ruptured extra uterine pregnancy, absence of the regular monthly flow, a sudden sharp pelvic pain and syncope. These,

when followed by the appearance of internal hemorrhage, should demand surgical interference.

Dr. J. F. HALLER spoke of a case occurring in his practice a couple of years ago which tended to prove the difficulty of making an absolute diagnosis in such cases.

A lady, a little over 30, German, quite corpulent, multipara, while doing her washing one morning, was suddenly seized with sharp, colicky, sickening pain in the right lower abdomen. She had suffered from intermittent colicky pains for two days previously. Her menstruation, while somewhat different from the ordinary, had excited no suspicion of pregnancy. Neither had she had any changes in the breasts or other symptoms usually common in pregnancy.

Examination of vagina showed perhaps some softening and discoloration and there was no appreciable enlargement or softening of the cervix or body of the uterus.

There was no displacement to the left or posteriorly of the uterus, and at no time had she passed any shreds of decidual membranes. There was some fulness in the right cul-de-sac, but no resistance; no hardened nodules, no boggy, enlarged and rigid tube and no ovary could be made out. The left side appeared normal. Owing to great adiposity of the abdominal parietes, not very much could be learned except hypersensitiveness, dullness over ileo-coecal region, and rigid recti. The only symptoms pointing to severe trouble was the pain, which was of a sickening nature and intermittent.

Her pulse was small and rapid; temperature a little subnormal at first, afterward rising. She wore an anxious expression, had cold chills and perspiration and looked very anemic and prostrated.

The most perplexing features were her nausea and vomiting and profuse menstruation, which had just started in.

One naturally thought of ruptured pyosalpinx; of ovarian cyst with torsion of pedicle; of extra uterine pregnancy; of a ruptured and diseased appendix, etc.

The rigid recti, the nausea and vomiting, the pain, tenderness and dullness over the iliac region, and the apparent absence of the usual signs of ectopic gestation rather pointed to an appendical lesion and was very confusing. A consultation was suggested with Dr. George R. Fowler, to which I gladly assented.

Doctor Fowler thought it looked more like extra uterine pregnancy than anything else. The

patient's condition was so alarming that immediate operation was absolutely necessary.

A few hours afterward the patient was operated on at the German Hospital by Dr. Fowler.

Upon opening the abdomen a large intraperitoneal hæmatocele was found, enclosing three-fifths of the right tube, which had ruptured into the abdominal cavity. The tube had been the seat of a pregnancy, somewhere about a month to six weeks. The right ovary contained a number of multilocular cysts. Some coagulated blood was found behind the uterus and omentum had been caught behind the appendix.

The appendix proved to be the seat of an inflammation and had become adherent to the tubal tumor, firmly bound down by adhesions, twisted, enlarged and also ruptured. In this case there seemed to be ample justification for the diagnosis of ectopic gestation as well as a diseased appendix. The uterine adnexa was removed on the right side and the woman made an uneventful and satisfactory recovery.

Dr. A. M. JUDD: In regard to the relation of the diagnosis of ectopic pregnancy to the general practitioner, I believe that those gentlemen who mentioned it, said that the general practitioner should make the diagnosis. In fact, the majority of the cases that have come to me have come with the diagnosis already made, but it is in those cases where a tentative diagnosis should be made that I think a specialist should be called upon, and here I have to admit that, many times, I have had to let it remain a tentative diagnosis and operate accordingly.

With regard to making incision through the vagina, the doctor misunderstood me. I said the incision should not be made through the vagina in cases of probable ectopic, unless you are prepared to go in above. I believe many cases can be operated on through the vagina. I have never seen infection occur except in one case, and that was operated on later by Dr. Jewett, who removed both tubes and ovaries. Other cases have recovered quickly.

In regard to the gall bladder: I am glad that has been brought up. I carelessly left that out.

I understood one of the gentlemen to say he did not think rupture occurred between the layers of the broad ligament. I will have to differ with him for this reason: In all the cases I have seen where I have operated through the anterior abdominal wall, there has been free blood in the peritoneal cavity, but almost without exception a mass has been formed between the two layers of the broad ligament. I think that a rupture can



occur between the layers of the broad ligament, and I think many primary ruptures are between the layers of the broad ligament, and I think many cases can be diagnosed at this time if proper attention is given to them; as a matter of fact, this is generally the mode of formation of the mass felt in either lateral fornix.

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## THE BROOKLYN SURGICAL SOCIETY.

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REGULAR MEETING, OCTOBER 6, 1904.

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The President, W. B. BRINSMADE, M.D., in the Chair.

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### RUPTURE OF THE INTESTINE FROM EXTERNAL VIOLENCE.

Dr. O. A. GORDON reported the case of a patient, aged six years, who in April last was run down by a heavy wagon, falling face downward across a car track. The front wheel of the wagon struck him and passed part way across his back, when the driver checked the horse and backed the wagon. The boy got up and ran a short distance, after which he was carried to his home. Dr. Gordon saw him in about an hour, and learned that he had vomited after arriving home. Examination did not reveal any external evidences of injury. The patient's pulse was rapid, the abdomen was tender to the touch, the abdominal muscles rigid and not moving with respiration.

The Doctor saw the boy again in a few hours, and found all the evidences of internal injury more marked. Rupture of the intestine was suggested to the parents as the most reasonable diagnosis, and operation advised, which was accepted. The patient was taken to St. Mary's Hospital and the abdomen opened in the median line. The cavity was found filled with a turbid fluid; and a hole was found in the small intestine that would admit a large lead pencil. This was closed with a purse-string suture, and after flushing and filling with salt solution, the abdomen was closed without drainage.

The recovery was uneventful, which happy result the Doctor attributed to the fact that the operation was done within a few hours of the receipt of the injury.

### Discussion.

Dr. W. C. WOOD said Dr. Gordon ought to be congratulated on such a diagnosis and such a recovery in such a case. The difficulty of making an early diagnosis of rupture of the bowels, especially in children, seemed to him fraught with unusual difficulty, because such a child will not permit a proper examination, and on palpation immediately tightens the abdomen, and one gets an idea of rigidity not properly accounted for by underlying pathological conditions.

Dr. Wood stated that he had examined the boy with Dr. Gordon, while the child was asleep, and during the sleep he could still find the rigidity. On this account Dr. Wood felt positive of a lesion underlying the rigidity. He believed that to examine such a child awake when it is crying, fretful and resisting, complicates the diagnosis a great deal. The Doctor said that, as was brought out in the Society some years ago, repeated and careful record of an increasing pulse rate, in connection with beginning colicky pains, he believed to be the important thing in making a diagnosis early of rupture of the bowel. He had found that point of great help in examining cases since that time.

Continuing, he said, that a diagnosis of injury to the abdominal wall as distinct from an intra-peritoneal contusion offered also to his mind some points of difficulty in diagnosis. He said that he had seen several of these cases, and when in doubt, it is only by making pressure laterally on the abdominal wall, attempting to determine the presence or absence of tenderness in the abdominal wall, as distinct from the deep pressure of the peritoneal cavity, that he had been able to differentiate these two conditions. Not long since he saw two cases with local tenderness directly over the site of the appendix, with rigidity that went with the tenderness, one case without any history of injury. One case was opened and showed a hæmatoma of the rectus muscle following contusion. Later it developed that the man had been drinking at the time of injury and did not recall before the operation a blow he had received. The second case was without any history of injury, and the lesion was shown to be in the abdominal wall rather than beneath it; and after it was stated that such was the case, the man remembered that he had been struck in that place some five days previously.

Dr. Wood thought that the importance of differentiating between tenderness and rigidity due to intra-abdominal conditions and lesions in the

abdominal wall itself has not received quite the amount of attention it deserves.

#### INTESTINAL OBSTRUCTION DUE TO OMENTUM.

Dr. O. A. GORDON reported the case of a man aged 30 years, admitted to St. Mary's Hospital last July, who had been suffering with severe abdominal pain and had been vomiting for five days, during which time there had been no bowel evacuation. When admitted to the hospital the vomiting was fecal in character. As he was a painter, his physician at first thought the trouble might be due to lead poisoning. The abdomen was distended and very sensitive to the touch. There was an old scar in the median line, which showed that he had at some previous time had his abdomen opened.

After incising the peritoneum the small intestine was found to be darker than normal, distended above and partially collapsed below. A loop was found to have passed through an opening in the omentum, which was released when the collapsed portion became inflated. It did not seem to Dr. Gordon that the obstruction was complete. Although the handling of the intestine was done very carefully, the peritoneal coat was torn in three places, the tears extending nearly around the gut, showing that the tissues were in a weakened condition, which he could not account for. The tears were sutured, the omental bands tied off and removed, the abdominal cavity filled with hot salt solution and closed. The patient continued fecal vomiting for a day or two, when the bowels began to move and he made a slow recovery.

In looking up his previous history, it was found that he was admitted to the hospital in the service of Dr. Wood, November, 1903, with about the same history, and the operation revealed conditions in every way identical with those just related. The post operative history was also the same.

#### RAPID FORMATION OF PHLEBOLITHS AFTER INJURY.

Dr. T. B. SPENCE, on behalf of Dr. G. R. Fowler, spoke of a case in which Dr. Fowler had removed a number of phleboliths from the forearm of a vigorous man about 30 years of age. The man dated his trouble from a slight blow, and two weeks afterwards complained of a number of small hard swellings at the site of this injury. On removal these were found to be made up of calcareous matter in the inside of a vein. Analysis proved that these stones were calcareous. The point of special interest was the rapid appearance of these growths after the injury.

#### RHINOPHYMA.

Dr. T. B. SPENCE presented a patient who had been operated on by Dr. Fowler for rhinophyma. This patient fifteen years ago noticed his nose getting red, and later small nodules began to appear and slowly increased in size up to the time of operation. The first surgical measures were resorted to four weeks ago. Two wedge-shaped pieces were taken out from the side of the nose, and later there was a nodule simply sliced off. Dr. Spence presented a photograph of this patient taken before operation. The success of the operation was strikingly illustrated.

#### ACUTE INTESTINAL OBSTRUCTION.

Dr. W. S. SIMMONS read a paper on Acute Intestinal Obstruction, for which see this JOURNAL, page 446.

#### *Discussion.*

Dr. H. B. DELATOUR said that within the last few years a great deal has been written about the early diagnosis and treatment of appendicitis, and following on that the diagnosis and treatment in empyema of the gall bladder, and little has been said in relation to the condition now under discussion. There was one of these conditions he desired to speak of, and that was intussusception. He believed that intussusception is too little known and recognized by the general practitioner, and that it is necessary to bring before the medical profession the existence of such a condition and place it on the same par as the other conditions that we have been talking of so freely.

The speaker had seen quite a number of cases of intussusception, and several of them under the care of most excellent medical diagnosticians, and still they have never thought of the condition. The symptoms, he said, are plainly enough described in the text books, and they are almost always distinctly present in each case. It was hardly two years ago that a child was presented to him at the clinic at Long Island College Hospital as a case of hemorrhoids, when as a matter of fact it was a projecting mass of intussusception. When it was carefully examined, the opening into the bowel and the opening from the cæcum into the appendix could be distinctly seen projecting beyond the sphincter. The child was in extremis, and it was impossible to do anything.

Only two weeks ago he saw a little girl, five years of age, who on Sunday night was taken sick with abdominal pain, nausea and vomiting, which continued and was accompanied by the passage of bloody mucus from the bowel and the passage of



some gas. He was called to see the case on Thursday, the symptoms persisting in the meantime. Rectal examination showed a mass well down in the rectum within easy reach of the finger.

Dr. Delatour added, that last spring he saw another case in which the condition had existed for over a week and no diagnosis had been made. On rectal examination there was no difficulty whatever in feeling a mass, and during the greater part of the time at least the characteristic symptoms had been present.

As to the method of treatment, his experience had been very decided as against operation. Every case operated on by him died. Two cases were in such a condition that they would permit of no interference, i. e., it was not justifiable and would have been of no avail. One case he operated on suspecting appendicitis. The patient was a boy seven years of age, who had been sick three days. He started in with localized pain and tenderness characteristic of appendicitis, and at the time he saw him had a small mass in the right iliac fossa. He expected to find an abscess, and instead found an intussusception of about six inches of intestine. It being impossible to reduce the mass a resection was done, and the child died about twelve hours after the operation.

Dr. Delatour stated that cases in which he had used injections had been successful and have been exceedingly satisfactory. A case in a little girl that he saw in the country a few weeks ago was instructive. He had made a diagnosis of intussusception and advised the use of water injections with the child held up almost in an inverted vertical position. He advised repeating the injections every two hours until signs of giving way of the intussusception were evident. He went to see the case in the evening, and found the attending physician giving an injection. The physician had made a special effort to introduce his catheter as high as he could, and as a result he had introduced it into the lumen of the small intestine. He had introduced the catheter some 15 or 18 inches before he gave the injection. That, he said, is contrary to what you want to accomplish. We must begin by distending the rectum and forcing the mass back. As soon as that is done, after a quart of water has been injected, the tube was withdrawn and the fluid came away. Examination afterward failed to detect the mass. After four repetitions at two hour intervals a fecal movement occurred. The child, who had been in an extremely weak condition, began to show improvement, and from then on had no further

symptoms. A similar result followed in four other cases.

In conclusion, he said, that it seemed incumbent upon us to bring before the profession the necessity of recognizing this condition in young children at as early a time as possible, and second, that the operative interference is accompanied by a very high mortality. Injections properly carried out offered much better results.

Dr. J. B. BOGART said that he entirely agreed with Dr. Delatour in regard to the frequency of this condition. He felt satisfied that it was often overlooked, and thought that in minor cases relief is often obtained by injections without the diagnosis ever having been reached.

A symptom which to him is very characteristic, even in the absence of some of the most common physical signs, is the rhythmical contraction of the intestine, accompanied by pain. In one of the milder cases he saw some years ago in a boy six years old, there was nothing to be felt by rectum. The report was that for the last week he had persistently complained of recurring pain in his abdomen, and just about the time the speaker reached his bedside he had an attack of this pain. He was lying perfectly calm and his temperature was normal and pulse not much disturbed, but while Dr. Bogart looked at him his face became disturbed, and he drew up his knees and cried with pain. The Doctor had his abdomen stripped and examined him, first by rectum, and found nothing. On palpation of the abdomen he found a tumor under the ribs on the left side. He watched the recurrence of this pain for some time. The boy was quite comfortable in the intervals of the pain.

The Doctor had forgotten whether he made any efforts to relieve this boy by injections; but he opened the abdomen and found the usual condition, and relieved it without difficulty, and the boy made an uninterrupted recovery.

Dr. Bogart said that his experience was quite at variance with Dr. Delatour's. He had been very successful in the cases he had operated on; in fact, he had 100% of recoveries—never, except in one case, having succeeded in reducing intussusception by the injection method. He had come to feel it was wasting time to use injections, but that if the surgeon operates early he will succeed. The youngest child he had operated on was four months old. That baby was ill for twenty-four hours. In that case the tumor could be felt by rectum. He had some difficulty in reducing the intussusception, but by patiently squeezing it out, it was reduced satisfactorily, and the baby made an uninterrupted recovery.

He said further that he had seen a number of cases of intussusception, in which he felt that the case had gone too far to undertake any operative interference, the children being in extremis; and he had seen others in which he could not make out a tumor and could not feel anything by rectum, but there was this same characteristic rhythmic pain that he had remarked before. In one case he remembered that when the pain came on, the boy insisted upon getting up and making an effort to move the bowels. The most careful efforts on the speaker's part had failed to reveal any tumor by rectum or abdomen. The patient was relieved by injections, and had no further trouble.

He added that he was impressed with the fact that the milder form of intussusception is a common condition, and many cases now lost might have been saved if treated earlier. He thought it a mistake to treat the subject of intestinal obstruction as one topic. It is a little more than a symptom—a symptom of a great many conditions, and it seemed to him that a discussion of the different conditions which bring about intestinal obstruction would enable us to narrow the discussion down, so that we would learn more and better elucidate the subject.

Dr. W. MADDREN said that often the class of cases included under the chronic form became suddenly acute, and called for all the activity required for the acute form. In malignant disease there is often a narrowing of the bowel, which becomes suddenly obstructed, and the surgeon must operate for the obstruction, if not for the malignant trouble. As an instance he would recall the case say of a woman with a strangulated hernia. She might not have recognized that she had a hernia. She might have thought it was a swollen gland in the groin. She might be taken with all the symptoms of acute intestinal obstruction. The abdomen being searched very thoroughly no tumor could be found, nothing except a general condition of distention, but perhaps on further search a very little knuckle in the bite of the femoral ring that was not sufficient to make a tumor would be recognized from external examination. Often cases are revealed at autopsy that do not show a tumor externally, the only symptoms being general distention of the abdomen.

The late Dr. Barber, he said, was wise about these things. If he had a case of intestinal trouble the first thing he investigated were all the openings where there might be obscure hernia, and by that method he was helped to make a diagnosis in some doubtful cases. As Dr. Delatour said, he

thought frequently cases of intussusception are overlooked.

In females he thought the majority of cases of intestinal obstruction were due to adhesions; in males to malignant trouble. He had seen obstruction in a patient only 18 years of age due to malignant disease.

Dr. A. RAE thought that the mortality resulting from intestinal obstruction was due more particularly to the fact that the condition has progressed too far before the surgeon is notified and able to interfere. Early operation upon the appearance of symptoms of obstruction is the correct treatment. A case recently admitted to Dr. Bristow's service at Long Island College Hospital demonstrated this. A young married woman, 32 years of age, was sent in as a case of appendicitis. There were no symptoms on which a diagnosis of appendicitis could be made. The case was admitted on a Friday afternoon, pulse and temperature normal. She had some distention of the abdomen and a slight amount of pain over the umbilical region. There was practically no tenderness over the appendical region, even on deep pressure, except what might be accounted for reasonably as due to the distention. The bowels moved in response to enemas.

On Sunday, at three o'clock, she vomited about four drachms of stomach contents, with slight fecal odor. That was the first indication of intestinal obstruction. The patient was watched for a further repetition of the vomiting, inasmuch as the first vomitus was bilious in character. At four o'clock the next morning the vomiting recurred. The abdomen was opened and a firm adhesion shutting off the distal four inches of the ileum was found. The obstruction was removed and the patient recovered.

Dr. A. H. BOGART, continuing the discussion, presented a specimen of Meckel's Diverticulum removed from a man at the Kings County Hospital. He had been sick a couple of days when he came in, was almost in extremis when operated on, and when the abdomen was opened it was found that one end was attached to the umbilicus and the other to the intestinal wall. It was treated as an appendix—a purse string around the base, and the other end tied off and removed from the umbilicus.

The speaker thought the question of intestinal obstruction might occupy their attention for the entire season. He had seen more cases of intestinal obstruction than any other acute condition. This month he had operated on four cases. Unfortunately, most of the cases he saw were in



extremis when brought to the hospital, and the question always came up with him as to what one is going to do about it. The question is, what is the best thing to do? In every case he supposed we should try to save the life of the patient. In these cases it is almost absolutely useless to attempt to save the life of the patient by opening the abdomen and relieving the obstruction. If we were positive about the location of the obstruction, and could make a small opening in the side and bring a loop of intestines up and relieve the symptoms in that way, perhaps some might recover.

He stated that he had operated on an old man who had been sick three days and was practically in extremis at the time. After opening the abdomen he immediately discovered that the man was suffering from intestinal obstruction. He found the intestine was twisted around. The guts were all distended and the man was about dead when he got through, and if he attempted to turn out all those intestines and relieve the obstruction, the man certainly would have died on the table. He simply brought up and opened a loop of large intestine, and was able to get the patient off the table alive. He died promptly afterward.

A woman whom he had operated on to-day was operated on three months ago in New York for appendicitis. She presented the symptoms of obstruction with fecal vomiting. The abdomen was full of fluid, the intestines distended and injected. In overhauling the intestine he came to a place where he had torn it from some adhesion, and in doing this the mesentery had been pretty badly lacerated, and he had a severe hemorrhage to deal with. In stopping the hemorrhage from the mesentery he feared it might be that he had cut off the blood supply of the intestine too much.

Dr. W. C. WOOD said, in reference to the point just raised, that these cases that show obstruction of the large intestine, when they are in extreme condition, he believed, are best treated with incision under cocaine. On the other hand, those cases of acute intestinal obstruction, where the obstruction is apparently high up, one has to do a complete operation or nothing.

He stated that while he had seen all the classical varieties of intestinal obstruction, in the last year he had seen several examples of two rather uncommon types. One was obstruction due to the tubercular ulceration and strictures of the small intestine. He had seen several cases of this type, and there, unfortunately, the condition is almost always multiple, not single. The sur-

geon may relieve these cases and they will do reasonably well for some months, but the patient will have a second attack from tubercular stricture higher up or lower down. He had operated twice on one such patient to have her die in the same condition, as proven by autopsy some months afterward.

Within a year he had seen three cases of obstruction following appendicitis, the primary disease having been treated surgically in two of the cases and medically in one, the pathological condition being the same—adhesions following the inflammatory condition. In these cases, in addition to the adhesions, he had always found more or less of a secondary abscess; a small hidden collection of latent pus has been present in these cases where they have followed an inflammatory trouble, whether treated by surgery or not.

Concerning these cases of intussusception, upon which there has been expressed such a difference of opinion, they seemed to him to fall naturally into four distinct classes: First, those mild cases where the diagnosis is indefinite; Second, where the diagnosis is clear by the presence of a tumor, in infants, where they can be relieved by rectal injections. The first case of this kind he ever saw was a boy now ten years of age. In the second type these injections should not be prolonged too long, as on opening the abdomen we find a condition that can be relieved by traction or pressure. About half of these cases with him have recovered. In the third type, on opening the abdomen, a resection of a portion of the intestine itself is found necessary. He had done both the resection operation and the operation of Baker, which he thought preferable, but he did not have a recovery from any of these cases, having had eight deaths in succession. There is a fourth variety where a gangrenous condition appears at the anus. These cases he believed beyond all surgical means, although they lived sometimes for a little time. Dr. Westbrook had a case of that kind which came pretty near recovery, but died in about ten days. Of those cases of intestinal obstruction in which operation had to be done on the bowel he had never had a successful issue.

Dr. R. W. WESTBROOK said that he believed that intussusception is frequently overlooked in young infants under a year old, and that it is usually passed off as dysentery, and when the child dies that diagnosis is given. He had seen a number of cases, all quite late, and all died. The case Dr. Wood mentioned was diagnosed as dysentery, and in some days the intussuscep-

tion appeared at the anus. There he found a large gangrenous mass, which he removed from the outside. The child lived four or five weeks and died of a gastro-enteric attack. He was waiting to hear if any one had a case of recovery where an actual operation on the bowel had been done for more than the drawing out of the telescoped portion, and did not know of any other case done in Brooklyn except the one Dr. Bogart reported.

Dr. A. H. Bogart has asked what are we going to do about cases gone too far when we get them? The only way is to educate the medical practitioner to a recognition of these cases.

Dr. Erdmann, of New York, has seen a large number of cases of intussusception, and as he understood it, it was because Dr. Erdmann had educated a number of practitioners on the East side to recognize this condition. Dr. Westbrook thought that the medical practitioner must learn to recognize these cases early, and thought that the method of injection should be tried first.

This summer he saw a case that he thought, without doubt, was intussusception. The child was taken with characteristic symptoms, sudden pain and bloody stools, and was treated for dysentery. The condition went on, the child became emaciated and starved, and a consultant was called on account of the difficulty of urination, which is one of the symptoms. It was at the end of several weeks when the speaker was called to see the child. He located a mass in the left iliac fossa and made a diagnosis of chronic intussusception. Dr. Westbrook made an almost hopeless prognosis. Not very long after that the family physician told him there was a discharge of material accompanied with blood, and from that moment the child began to pick up and is now practically well. He thought sloughing out of the intussusception had occurred, and that Nature had in that way brought about recovery, although there might later be some narrowing of the bowel with sloughing at that point.

Dr. J. B. BOGART, replying to Dr. Westbrook, said that he wanted to correct a false impression on his part. He had no recovery where he had resected intestine. In all the cases he had operated on he was able to reduce the invagination without resection. In the case of the four months' old baby he spoke of he failed to reduce the intussusception by the injection method, and it was after that that he operated successfully.

Dr. W. S. SIMMONS, in closing, said that it is well to take a middle course between Dr. Delatour's idea of always employing injections in

these cases, and Dr. Bogart's. An intussusception of the large bowel can be reduced by the method of injection, but he doubted very much if one could reduce it in the jejunum or ileum by that means. Neither did he think it wise to take the stand that it is useless to employ injections at all as a waste of time and operate on every case. There are cases undoubtedly which we see at autopsy, where the intussusception is so tight it is impossible to reduce it, and these cases certainly would not be reduced by the method of injection.

Dr. Simons said that he had left out strangulated hernia in the paper on account of its now wide recognition by the general practitioner, and mentioned the fact that the brilliant results now obtained by surgery were due to early recognition of the trouble. He thought if cases were sent to the surgeons more quickly they could do more for them. He likewise thought it wise to do something for them any way, for if they are in extremis they have nothing to lose by the operation. Some cases with the establishment of an artificial anus have recovered. He thought it is right to give every one of these cases the benefit of surgery.

#### PERITONEAL TUBERCULOSIS.

Dr. A. RAE reported the case of a young woman, 34 years of age, who was stricken with an attack of tubercular peritonitis five years ago, the attack at that time lasting three weeks. It subsided with the accumulation of a small amount of fluid in the peritoneal cavity. This cleared up and she was able to resume her duties, with the precaution of taking a long rest in the summer. Two years later she had another similar attack, but which lasted longer. In this attack there was no sign of fluid, the primary accumulation had disappeared, and she simply had disturbance from pain and distress from the peritonitis. During all this time she had continuously trouble with her intestinal tract, requiring some form of laxative with the use of enemas for weeks.

The early part of last year her digestive and intestinal disturbances increased. About the middle of January she was obliged to give up and go to bed. After two weeks there was an accumulation of fluid. It increased so that by July 10th it was found necessary to open the abdomen.

After removing about one gallon of turbid fluid, together with masses of caseous material, further examination revealed a large cavity, completely walled off, so that no abdominal or pelvic contents could be seen or felt.



The cavity was cleansed; the incision closed except at the lower angle, where a glass tube drain was placed. This was removed after a few days and further discharge was removed by a long nozzled glass syringe. The wound healed after six weeks, the cavity being obliterated.

The patient has been attending to her duties as a school teacher since January last.

#### ADENO-CARCINOMA OF THE TRANSVERSE COLON.

Dr. A. RAE reported the case of a patient, 53 years of age, an unmarried woman, thin and spare, who had always had a good deal of trouble with the digestive tract. Last July, in examining the abdomen, he found a mass in the umbilical region 6x4 inches, thin and flat. Her family history was tubercular, and the diagnosis as to the character of the mass rested between one of tubercular or malignant disease. There was no sign of any fluid. Some weeks later an accumulation of fluid was found in the abdominal cavity. She was taken to the hospital and the abdomen opened. The incision was extended so that the entire mass could be delivered. No omentum could be distinguished. The mass involved the entire transverse colon, and the abdominal glands were enlarged. A portion of the mass was removed for microscopical examination. The condition was inoperable. The pathologist reported adeno-carcinoma.

The operation was four weeks ago. The wound healed, and the patient has been comfortable ever since, but he presumed he had before him another case of intestinal obstruction, which would require the making of an artificial anus, so that the patient might live in comfort as long as possible.

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### CORRESPONDENCE.

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*To the Editor BROOKLYN MEDICAL JOURNAL:*

Enclosed you will find clipping from the *New York World*, of October 9th, purporting to be an interview with Dr. George Everson, of Greene Avenue, in relation to the proposed monument in memory of the late Alex. J. C. Skene, M.D., LL.D. The first and last statement is to the effect that a majority of the physicians in this borough are opposed to such a memorial. Let us look at the facts. We have about fourteen hundred physicians of the regular school in practice in this borough. About one-half are graduates of the Long Island College Hospital. It is not likely that they would vote against a memorial to their former teacher, nor do I believe that the fifty physicians of this borough not graduates

of the Long Island College Hospital, but connected with the hospital or college, would vote against a memorial to a former president of that college.

The Medical Society, County of Kings, of which Dr. Skene was president for two years, a short time ago placed a tablet in its building in memory of Dr. Skene, its membership being composed of about one-half of the regular practitioners of this borough, a majority of which are graduates of other colleges than the Long Island College Hospital. Did any one hear of any objections to the placing of this tablet? Where would the majority vote come in if submitted to the physicians of this borough?

Next, Dr. Everson presents the names of Andrew Otterson, M.D., John Griffin, M.D., and Joseph C. Hutchison, M.D., LL.D., as physicians that have risked their lives to save the city. This is nothing more than every physician is doing every day in the year. Drs. Otterson and Griffin, two respected members of our profession, are each of them general practitioners in the full meaning of that term. The political party with which they were connected placed them in a position which gave them a certain amount of popularity; they certainly performed their work as health officers with credit to the City of Brooklyn. Dr. J. C. Hutchison, to whom special reference is made, was a surgeon in this city of a very high order. No one ever claimed for him originality in his special department; he was devoted to his work, and it was therefore well done. He received all the honors which the medical profession could bestow upon him in this city and State. Dr. Hutchison's work, in the epidemic of cholera in 1854 was from June to October of that year; 656 deaths were recorded. If Dr. Everson's wish is to erect monuments for work of this nature, why not give our attention to the year 1856, when yellow fever was epidemic in Brooklyn and New Utrecht, at which time Drs. James E. Dubois and James L. Crane contracted the disease and died while in the performance of their professional duties?

Again, in 1866, during the cholera epidemic, Charles Neuhaus, M.D., contracted the disease, which proved fatal in a few days. Out of 816 cases, 573 proved fatal. The city at this time established two hospitals, one at Hamilton Avenue and Van Brunt Street, in charge of William H. Thayer, M.D., and the other located at the City Park, in charge of Frank W. Swalm, M.D. As all of these physicians have performed work of the same character, and if honor is due one, it should be extended to all.

The next portion of the interview is about as hard to understand as anything the writer has had before him. Honest criticism is always in order, but when a professional man, claiming some degree of education, perverts facts, he should at least present some reasons for his statements, or in his own person have attained a position of eminence far superior to the one he is passing criticism upon.

Referring to Dr. Skene: "He wrote a novel, it is true, but this novel was a failure, and his friends, in charity, destroyed the plates of the work. Then he also wrote some medical works, which did not contain anything new and which were largely a copy of works already published."

It is evident from the above that Dr. Everson has omitted reading anything relating to the life work of the late Alex. J. C. Skene, in the *BROOKLYN MEDICAL JOURNAL* for April, 1897, in an article by William Browning, M.D. In the same journal for September, 1900, he will find a tabulated statement of the work accomplished by him, in memory of whom it is intended to erect a monument. He will bear comparison with any other member of the medical profession that has ever practiced the healing art on Long Island.

The writer, being somewhat acquainted with medical literature, is unable to find any evidence which would tend to show that Dr. Skene's first book, published in 1878, "Diseases of the Bladder and Urethra in Women;" the third, published in 1889, "Education and Culture as Related to the Health and Diseases of Women," and the fifth, published in 1899, "Electro Haemostasis in Operative Surgery," contain anything that could be classed as copied, for the simple reason that there are very few, if any, books upon these subjects. In relation to the other two, on "Diseases of Women," published in 1888 and 1895, I fail to see where due credit has not been given to every physician that has written upon the subject under consideration. Would Dr. Everson have us understand that in order to write a book the subject-matter should be original from cover to cover?

The late Dr. Alex. J. C. Skene requires no defenders in or out of the medical profession. His life of forty years in this city is as an open book; it speaks for itself. The record of his professional life will shine brighter year after year, and be an incentive to hundreds of our profession yet to come, as one of the brightest ornaments the profession of medicine ever had in this city. Our aim should be to go and do likewise.

WILLIAM SCHROEDER, M.D.

## Brooklyn Medical Journal.

All communications, books for review, articles for publication, and exchanges should be addressed *BROOKLYN MEDICAL JOURNAL*, Library of the Medical Society of the County of Kings, 1313 Bedford Avenue, Borough of Brooklyn, New York.

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Entered at Brooklyn, N. Y., post office as second-class matter.

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BROOKLYN-NEW YORK, DECEMBER, 1904.

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### BROOKLYN'S MEDICAL GUESTS.

Brooklyn is fortunate in having entertained during the month just passed several distinguished medical men, among them Dr. William Osler and Sir Felix Semon.

Both of these gentlemen have recently had the eyes of the world directed to them; but to medical men they have long been known and appreciated by virtue of their achievements in behalf of medical science. The honors which have come to them have, by a reflection of this public appreciation of their talents, honored the profession of medicine as a whole.

Dr. William Osler, an American in a broad sense, born a Canadian, but for many years closely associated with two of our foremost universities, is, as has been previously stated in these pages, soon to become affiliated with the medical life of the other side of the Atlantic, having accepted at Oxford the position similar to that which he held at Johns Hopkins.

Dr. Semon, whose visit to this country has lately terminated, came in acceptance of the invitation of the Committee of the International Congress of Arts and Sciences, held in connection with the St. Louis Exposition, to deliver an address at the section on Laryngology, Rhinology and Otology, upon recent progress in, and outlook for, the future of these divisions of medicine.

This address was published in the October number of the *Laryngoscope*.

To the medical men of this city who have assisted to make the visits of our distinguished confrères a possibility, thus giving to the profession of Brooklyn the pleasure of hearing the valuable papers presented by them, the *JOURNAL* wishes to extend congratulations.

It is a pleasure, also, to announce that the lectures of Sir Felix Semon and Prof. William Osler will appear in the forthcoming issue of the *BROOKLYN MEDICAL JOURNAL*.



### THE RELATION OF CLEAN STREETS TO PUBLIC HEALTH.

The choice of a physician as Street Cleaning Commissioner has been abundantly justified in the selection of Major Woodbury, who is now filling that position during a second administration in Greater New York.

We are glad to bear testimony to the fact that the streets of Brooklyn, notwithstanding the recent extensive tearing up and repairs which they have undergone, have been, until very lately, in better condition during the past few years than ever before, so far as cleanliness is concerned.

The extensive laying down of asphalt has contributed not a little to this improvement, and to the department responsible for this we would not withhold praise. Cobble-stone pavements are not only an eye-sore, but their uneven surfaces render the process of cleaning inefficient and unprofitable. Asphalt roadways are improvements of the best sort, in that dirt on them is more conspicuous and hence just so much more apt to be soon removed.

The health of the city has been more general and the annual mortality has become less, since the building of asphalt streets has become extensive and the repair of them well systematized and thorough. The two hundred additional street sweepers over the eight hundred already employed, which have been promised to Brooklyn by Dr. Woodbury after January 1st, will, it is hoped, be able to keep the streets cleaner than ever before.

The JOURNAL believes in bestowing credit where it is due, and does not hesitate to ascribe to the improved state of our streets part of the cause for the recent favorable showing of health and mortality statistics.

### AN ADDITION TO BROOKLYN'S WATER SUPPLY.

It is impossible that our water supply shall be free from deleterious germs while part of the supply is drawn from ponds such as that at Hempstead and others closely surrounded by a rapidly increasing population.

The needs of Brooklyn are so great that to eliminate every questionable supply is, at present, impossible. For the future there seem to be two sources by which Brooklyn may be supplied with water of unquestionable purity. One of these is by extending the system of driven wells and infiltration galleries, the other is that of a supply drawn from an isolated locality, perhaps from the Catskills or the Adirondacks, supplying Brooklyn in common with the other New York Boroughs.

Which one of these shall be ultimately selected

it is the part of the city engineers to decide. It is at present more to the point that there is now in process of installation at Wantagh, Long Island, an additional system of infiltration galleries which will supply all Brooklyn's needs for the immediate future and which will probably prove so profitable in the matter of quantity and quality of water obtained, that Brooklyn's increasing needs for many succeeding years will be supplied by extensions of the same system of supply.

### MEDICAL NEWS.

EDITED BY CLARENCE REGINALD HYDE, M.D.

*It is earnestly hoped that all members of the profession possessing news concerning themselves or their friends, which would interest others, will communicate the same to the News Editor before the 9th of each month. Items for this department should be sent promptly to Clarence Reginald Hyde, M.D., 126 Joralemon Street.*

Dr. Edward C. Bennett has removed to 244 73d Street.

Dr. David Davidson has removed to 446 Pacific Street.

Dr. George W. Beatty has removed to 204 Jefferson Avenue.

Dr. J. F. Haller has removed to 291 Stuyvesant Avenue.

Dr. M. D. Jones has removed to 566 Greene Avenue.

Dr. Ellen Lysaght has removed to 1078 Bergen Street.

Dr. Glentworth R. Butler announces a change in office hours as follows: 9 to 11 daily; other hours by appointment.

At the annual commencement of Hamilton College in June last, Dr. Glentworth R. Butler had conferred upon him the honorary degree of Doctor of Science.

The Governors of the New York Skin and Cancer Hospital announce that Dr. L. Duncan Bulkley will give a sixth series of clinical lectures on Diseases of the Skin, commencing November 2d. The course will be free to the medical profession.

A complimentary dinner was given to a number of Brooklyn physicians by the trustees of the Bensonhurst Sanitarium, Twenty-second Avenue, Saturday evening, November 12th. The object of the gathering was to acquaint the guests with the facilities of the Sanitarium. The Re-

ception Committee was composed of Doctors McCorkle, West, Rushmore, Jameson, Mayne and J. W. Hyde.

Dr. Walter Wood announces his resignation as attending surgeon to St. Mary's Hospital, Brooklyn.

Dr. H. Beekman Delatour has been appointed Professor of Clinical Surgery at the Long Island College Hospital.

Dr. and Mrs. Thomas R. French, of 150 Jorammon Street, gave a delightful reception at their residence November 4th, to meet Sir Felix Semon. The reception was largely attended by many Brooklyn and Manhattan physicians and others not connected with the profession. On November 3d Sir Felix delivered an address before the senior class of the Long Island College Hospital on Acute Septic Inflammation of the Throat and Neck. To Dr. French is due the thanks of the medical profession in Brooklyn for the opportunity to meet this distinguished foreigner.

The father of George Arents, Jr., the young man who was injured by the overturning of his machine during the Vanderbilt cup race on October 8th, has presented \$1,000 to the Nassau Hospital. It was to the Nassau Hospital that Arents was taken after the mishap. He is still there, but is rapidly recovering.

*Everybody's Magazine* for October prints a full page picture of Dr. Osler, of Johns Hopkins, with the following paragraph appended:

"The appointment of Dr. William Osler to the Regius Professorship of Medicine in the University of Oxford is a distinguished recognition of Dr. Osler's brilliant services in the American medical profession. Dr. Osler, born in Canada and a graduate of McGill University in Montreal, is acknowledged to be one of the foremost scholars in the medical profession. His writings not only cover a wide range of subjects but show insight and profundity. He has been Professor of Medicine at the Johns Hopkins Medical School since 1889. His departure from this country will be deeply regretted."

Dr. Anita McGee and her party of trained American nurses, who volunteered to nurse the Japanese soldiers, were recently decorated by the Mikado for their services in Japanese hospitals.

Harvard University intends to install another department with a four years' course to be devoted to the education of trained nurses. The department will probably be in charge of Dr. Alfred Worcester, of Waltham, Mass., who has just returned from a six months' trip to Europe, where he was sent by Harvard to investigate

methods of training for nurses. This college for nurses will be the first of its kind in the world. The students, besides lectures and recitations from text-books, will receive training experience in private homes as well as in hospital wards.

Prof. Niels R. Finsen, the discoverer of the "Finsen rays," has recently died in Copenhagen. He was forty-three years of age and a native of the Faroë Islands. In 1890 he was graduated from Copenhagen University, and three years later published an article on "The Influence of Light on the Skin," in which he asserted that smallpox could be cured by putting red curtains at the window of the sick room, a method successfully employed in the Copenhagen epidemic of 1894. Soon afterwards he found it possible to concentrate rays of electric light in such a way as to cure lupus, his first cure being that of a patient who for eight years had tried every known method unsuccessfully.

The recently elected officers of the Brooklyn Gynecological Society are: President, Walter J. Corcoran; First Vice-President, John O. Polak; Second Vice-President, Ralph H. Pomeroy; Recording Secretary, Henry C. Keenan; Corresponding Secretary, Victor L. Zimmerman; Treasurer, Joseph F. Todd; Pathologist, Charles L. Fincke.

Riots have occurred in Rio Janeiro because of the attempt to suppress smallpox. Twelve persons have been killed and sixty wounded, more than even the "anti-vaccinationists" can claim to have come to harm by reason of vaccination itself. *Verb. sap.!*

The latest report of the United States Commissioner states the whole number of medical students in the United States as 26,821. Of these there are in the State of New York 2,374; of these only 1,800 are in the city; 574 in the rest of the State outside of the city.

The Japanese medical commission which has been making a tour of the health departments of the principal cities of Europe and this country, declared, through one of its members, D. Sato, Chief Surgeon of the Imperial University at Tokio, that our local health department was better than anything he had seen in his tour, being equalled only by the health department of Hamburg, Germany.

The Court of Appeals, in a recent decision upheld the constitutionality of the law which provides that a child who is not vaccinated shall not be permitted to attend the public schools.

The deanship of the College of Physicians and Surgeons, which has been filled by Dr. John G. Curtis as acting dean since the resignation of



Dr. McLane, in June, 1903, has been filled by the election for the statutory term of Dr. Samuel W. Lambert, professor of applied therapeutics. Dr. Lambert is a son of the late Dr. Edward W. Lambert and was graduated from Yale with the degree of A. B. in 1880 and with that of Ph.D. in 1882. He was graduated from the College of Physicians and Surgeons in 1885. Since 1896 he has been one of the visiting surgeons at New York Hospital. Dr. Lambert becomes a member ex-officio of the university council, the board of trustees of Roosevelt Hospital, and the boards of managers of Sloane Maternity Hospital and Vanderbilt clinic.

The new French Hospital, opened by the French Benevolent Society, will be ready for patients November 15th. The cornerstone was laid by M. Jules Cambon, ex-Ambassador from France, November 18, 1902. The hospital cost \$400,000, with a mortgage on it of \$175,000. The building is seven stories in height and 104 feet long. It will accommodate 150 patients, having six wards and thirty private rooms. The flooring is one continuous sheet of composition without cracks or joints. The doors are without panels to prevent dust accumulation.

There is food for thought in the paper of Major Louis L. Seaman, U. S. A., who recently read a paper before the Association of Military and Naval Surgeons of the United States on Japan's Care of Sick Troops. Dr. Seaman showed that Japan's loss from sickness among her troops during the present Russo-Jap war is only one per cent. against our seventy-five per cent. during the Spanish-American war. His paper furnishes most interesting reading regarding the modern and scientific methods employed by the Japanese medical department. There is no country, except possibly Germany, whose army and navy medical department can compete with the Japs. They undoubtedly have the most thoroughly organized and finely appointed medical corps of any of the world's nations. And it is said that the Jap is only an imitator!

The Charities Commissioner has plans under consideration for the construction of a new emergency hospital at Coney Island to cost \$100,000. The new hospital is to be kept open all year, and not for five months only, as is the present emergency hospital.

A completed system of medical inspection of the schools has been established. A physician is sent daily to every school, and the scholars are inspected as to contagious or infectious diseases. Trained nurses are assigned to the schools in the poorer districts. Children are made to keep

themselves clean, and these nurses make home inspections. They show the parents the necessity for keeping their children clean and healthy.

Chancellor MacCracken, of New York University, in his annual report, presented to the board of trustees, called attention to the startling decrease in the number of medical students in the city and State. He arraigned the wealthy men of the city for their failure to endow medical schools and asserted that "a medical college is sixteen times as deserving as a clinic or hospital."

Dr. Louis A. Weigel, of Rochester, N. Y., who recently submitted to an operation for the removal of his right hand and a part of his left hand through continued exposure to X-rays, is being anxiously watched by others engaged in this work. Professor Welch, of Johns Hopkins, reports a diagnosis of cancer. Dr. Weigel's case is somewhat similar to that of Clarence E. Dailey, Edison's chief assistant, who died early in October, this year. Dailey suffered for seven years, during which time he had seven operations, the last one for the removal of both of his arms.

Dr. Charles Repin recently presented to the Paris Academy of Science a new method of freeing the blood from toxic substances in disease. By a special apparatus which he uses, he literally washes the blood by drawing off the serum, and replacing it with an artificial serum—normal salt solution. The blood is taken from a vein by aspiration and at once mixed with eight or ten times its volume of saline. The mixture is sent into a centrifugal separator which is so arranged that all the blood corpuscles are collected at one point. They are then taken from the separator by a pump which re-injects them into the system at once. The apparatus is automatic and works continuously.

The business manager of this JOURNAL makes the following appeal to the physicians of Brooklyn:

The BROOKLYN MEDICAL JOURNAL should be the medium through which to keep the physicians of Brooklyn posted regarding physicians' offices to rent, carriages, books, instruments; to buy or sell, etc. You are constantly in touch with people who have offices to rent, etc. Will you kindly send them to us? It will cost them only \$1.00 to put a "Want" ad. in the JOURNAL. We desire two pages or 36 "Want" advertisements for our next issue. A large list of this kind may at some time be of great use to you in selecting an office. You can help to make this an important and useful department of the JOURNAL. We trust that you have the welfare of the JOURNAL at heart and will be with us in the matter.

## BOOK REVIEWS.

**THE BLUES (SPLANCHNIC NEURASTHENIA): CAUSES AND CURE.** By Albert Abrams, A.M., M.D., F.R.M.S. N. Y., E. B. Treat & Co., 1904. Front., 240 pp., 5 pl. 8vo. Price: Cloth, \$1.50.

The main endeavor of this interesting and withal useful book is to distinguish a new sub-form to which he gives the name splanchnic neurasthenia. "An attack of the blues is nought else but an acute neurasthenia," etc., p. 15. "Treatment directed toward the relief of abdominal congestion alone will often permanently arrest the neurasthenic symptoms," p. 137. While these excerpts give the cue to the work, the first half is devoted to a general description of neurasthenia, i. e., to a summary of current ideas, some good, others less so. The latter portion is taken up with a discussion of various matters relating to the liver, lungs, pulse, etc.

He seems unaware of the modern view that arteriosclerosis plays an important rôle for while he describes (p. 33-5 the "Brain Changes in Neurasthenia," he says on p. 38, "neurasthenia has no definite pathology." The conclusion (p. 5) "that the important thing in all exercises is the mental effort put forth" does not appear to harmonize with our views of Rest Cure. He makes a warranted criticism of "uric acid intoxication." Gas-troptosis and allied states he does not accept as important factors in his form. What he calls "Pulmonary anemia" is clearly incipient tuberculosis. He describes as new what he terms "Liver reflex," a shrinkage of that organ on stimulation of the skin over it. The distinction between hypochondria and simple melancholia does not seem to be sufficiently made, though on p. 14 he truly says, "The morning heralds the depression."

Positive views on treatment are presented. Many of the old regulations, as about eating, are echoed without needed re-casting. He condemns cathartics, and recommends a combination of local massage exercises, electricity and appliances (p. 138). Somewhat similar may be the effects of certain respiratory and circulatory gymnastics described by Edward Blake ("Study of the Hand," etc., 1899, London). And it is a striking fact that we find much the same object aimed at by our townsman, Dr. C. F. McGuire, in his excellent little volume on "Rational Physical Culture" (V. this JOURNAL, 1902, p. 476). Each of these men is looking at things from his own standpoint and makes his own recommendations, but it all the more indicates a wide awakening to the importance of congestions of the trunk-viscera. The best plan for everyday prevention and relief is that of Dr. McGuire. W. B.

**THE TREATMENT OF FRACTURES.** With Notes upon a Few Common Dislocations. By Charles Locke Scudder, M.D. *Fourth Edition, Thoroughly Revised.* Phil., N. Y. & Lond., W. B. Saunders & Co., 1903. 534 pp., 2 pl. 8vo. Price: Buckram, \$5.00; Sheep or Half Morocco, \$6.00.

The best evidence of the value of this work is the fact that within four years there have been four editions. What we have already said in reference to this work still holds good, namely, that while it is not an exhaustive work in this field, it is one that is thoroughly up to date, and of great value to the student and general practitioner.

One of the valuable features of this work is the fact that the methods of treatment are not only described in clear, concise diction, but the illustrations are of such a character that they show how to apply the apparatus. The illustrations are a feature of the book.

We note that in this edition many new illustrations have been added, of the same excellent character as those in the original edition.

In this edition the author has made an important contribution in a chapter which he modestly describes as "Notes upon a few Dislocations." In this chapter the principal dislocations are discussed, methods of treatment thoroughly illustrated, and altogether forms a very satisfactory addition to the work.

Under dislocations of the shoulder we are glad to note that the illustration so frequently borrowed from Kocher has at last been abandoned and an original one substituted. It shows the patient lying down instead of sitting on a chair according to the German method. We believe that it is important to have the patient lying down while reducing this dislocation, for the reason that the patient is very apt to faint when the bone is replaced because of the shock upon some filament of nerves which go to the cardiac plexus.

The dislocation of the proximal phalanx of the thumb, which has always proved so difficult to reduce, is most satisfactorily treated and amply illustrated. The author's method of reduction is the only satisfactory one that we have found.

We note that the author has classified dislocations of the hip under two varieties, anterior and posterior. We are glad to note that this the proper classification is gaining ground, and has at last appeared in a modern text book.

WILLIAM FRANCIS CAMPBELL.

**A TREATISE ON ORTHOPEDIC SURGERY.** By Royal Whitman, M.D. *Second Edition, Revised and Enlarged.* Phil. & N. Y., Lea Bros. & Co., 1903. 848 pp. 8vo. Price: Cloth, \$5.50.

The present edition of Dr. Whitman's excellent work brings out the many advances made in this branch of surgery since the first edition, and also treats the different subjects in a more extended way. There are added also a number of fine illustrations, thus giving an almost perfect pictorial description of nearly every class of cases in all its different phases. These photographs of patients which the author has seen are an exceedingly valuable feature. This book should be found in the library of every practitioner as the symptomatology alone is a great aid to an early diagnosis in orthopedic conditions. And it is to be remembered that practically every orthopedic case in its incipency must be passed upon by the family physician. His decision will influence greatly the results. The reading of some chapters will be instructive to many who have not followed this branch of medical science, in showing what may be accomplished in these days of modern orthopedics in what were formerly classed as hopeless or, at best, discouraging forms of disease. The chapters on the non-tubercular affections of the spine and joints are especially interesting, and their perusal would well repay the busiest practitioner. The oft-neglected child with paralytic deformities has hopes held out to it by the suggestions made in the paragraphs on this subject, for important advances have been made in the technique of tendon transplantation and in the association with it of arthrodesis. The general surgeon should be able to get many valuable points on fixation by plaster of paris or instrumental means. Nowhere else can one find so clearly and practically stated the normal mechanism of the foot, its abuses and injuries, and its treatment under all conditions. The whole work is interesting reading, even without taking thought of its instructiveness. Medical science has been advanced by it, and humanity has been benefited.

CHARLES DWIGHT NAPIER.

**A PRACTICAL TREATISE ON MEDICAL DIAGNOSIS.** For Students and Physicians. By John H. Musser, M.D. *Fifth Edition, Revised and Enlarged.* Phila. & N. Y., Lea Bros. & Co., 1904. 1213 pp., 63 pl. 8vo. Price: Cloth \$6.50; Leather, \$7.50; Half Morocco, \$8.00.

Musser's Diagnosis has, from the day of its publication, occupied an enviable position in the esteem of the medical profession. Having now passed into the fifth edition it has grown in size and comprehensiveness until it may fairly be called encyclopedic. Its distinguished author has availed himself to the full of his opportunities to revise, enlarge and rearrange his material until the present edition fully represents the ripened results of his labors. In this edition especial attention has been paid to the later methods of laboratory work and physical diagnosis, and a section dealing with the X-ray has been added. Musser's work should be in the possession of all internists as an exponent and repository of the best medical knowledge of to-day. G. R. B.











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